

PROBLEM ECONOMICS

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PREFACE

WHAT is the best sort of book to usher students into the mysteries of economics? Some hold that it is a book which proceeds directly to the presentation of an array of specific economic problems such as those involved in unemployment, the payment of war debts, and the determination of railroad rates. Others believe that an elementary economics text should be devoted to a survey of the broad outlines of our economic system and the way in which it generally seems to work.

The authors of this book believe that the most useful kind of volume with which to inaugurate the study of economics is one that follows a middle course, drawing its material from economic problems stated in the homely and controversial terms of everyday life, and weaving this material into a pattern which discloses to the student the outlines of our economic system as a whole. They have tried to make such a book. The endeavor accounts for the title, "Problem Economics."

Much more than the work of those signed as authors is represented in this volume. It is, in a very real sense, the result of a community enterprise inaugurated by the Department of Economics at the University of North Carolina in an effort to improve the general course in economics. Among the members of the department who have had an important part in shaping the book are Dean Dudley DeWitt Carroll, who originally authorized the experiment, secured financial assistance to carry it on, and bravely encouraged tampering with the elementary course on the chance that it might be improved; John B. Woosley, contributor of a section on the national banking system and of many suggestions for the improvement of the volume; Harry M. Cassidy, who built much of the chapter on labor and whose critical assistance was most valuable; Thomas W. Holland, contributor to the chapter on labor and to the straightening out of difficulties elsewhere; and Erich W. Zimmermann, general counsellor and critic of the project.

Many people engaged in academic work at other institutions have taken a friendly interest in the creation of this volume and have given aid to it. Among those to whom special acknowledgment should be made are Walton Hale Hamilton, formerly of the Robert Brookings Graduate School and now with the Law School of Yale University, who not only contributed through his teaching many of the ideas crudely set forth in this book, but also read and criticized parts of it;

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It is impossible to acknowledge accurately indebtedness for ideas. In the chapters devoted to prices Herbert J. Davenport of Cornell University may recognize some of his teachings. But lest he and many others who might be mentioned should disclaim parenthood of ideas in the particular form in which they are here presented, no attempt is made to trace ideas to their source.

Many publishers and authors have generously allowed material owned by them to be reproduced in this volume. The authors are most grateful to them. In every case where material is quoted it is accompanied by the name of the writer and publisher. Material not so credited may be assumed to have been written by the authors.

In preparing this volume the services of Mrs. Clara Cutler Chapin, Mrs. Marjorie Hood Garfield, and Mrs. Anne Mellett Keezer have been very helpful. Mrs. Chapin read the entire manuscript with particular reference to exposition; Mrs. Garfield did the same for many chapters and also aided in the building up of some of them; Mrs. Keezer read and corrected the entire manuscript for simplicity of exposition and verified references throughout. Miss Bertie M. McGee typed accurately an almost countless number of pages in the course of many revisions of the manuscript.

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PROBLEM ECONOMICS

C H A P T E R I

A WORD OF WARNING

IN this chapter we will discuss briefly :

1. The scope and nature of economic problems.
2. The extreme complexity of the study of such problems because all of the elements involved are
 - (a) Constantly changing.
 - (b) So closely related that they cannot be isolated and studied separately.
3. The dangers of being misled by opinions on economic problems because of
 - (a) The wide range of points of view which may be taken.
 - (b) The ease of justifying almost any position.
4. The desirability of assuming a scientific attitude in the study of economic problems.
5. The relation between tolerance and good taste in the discussion of economic problems.
6. The impossibility of outlining definitions of general usefulness.
7. The general plan of this book.

WHEN the first economic problem arose no man knows exactly. If one accepts the view that human beings evolved from lower forms of animal life, it was when the first of our remote ancestors, through some still unexplained dawning of consciousness, realized that there were certain things they would like to have which were not theirs simply for the wishing; that there were obstacles in the way of having the things they wanted. If one prefers the Biblical explanation of the origin of the universe, the first economic problem arose when Adam decided to taste of the apple of temptation and stand the consequences. That involved getting out of paradise and going to work.

When the latest economic problem arose may be reported in the last edition of your newspaper, although more probably a host of them have bobbed up since that paper went to press, for their nature is such that they arise at all hours of the day and night, and in perpetual succession.

When the final economic problem will be solved depends upon one's estimate of the durability of the solar system, at least in so far as it affects man's habitation of one small part of it called the earth. So far as the predictable future is concerned it seems perfectly safe to forecast that there will always be plenty of economic problems.

What, then, is the nature of these all-pervasive problems having neither beginning nor end, which are as old as man himself, and are as certain to exist in the future as is the future itself?

They are simply the problems which arise in connection with the effort to gain a satisfactory livelihood, *i.e.*, satisfactory from the conflicting points of view of all of the millions of people engaged in that endeavor. The extent as well as the diversity of these problems is enormous. It ranges all the way from the painful problem of the small boy who peers sadly and longingly through the candy-store window and wonders how he can get a penny, to the problem of a great nation struggling for industrial and commercial supremacy with another great nation. Some economic problems are of very limited concern. Such, for example, is that of a man perplexed by the question of how he will raise enough money to fulfill his wish to attend the next heavy-weight prize fight, or that of a woman temporarily checked in her cherished plan to submit her hair to a particularly appealing kind of permanent wave. Other economic problems are common to certain small groups and of primary concern only to them. Such, for example, is the problem of a small company of hand glass-blowers struggling for their economic lives against the relentless pressure of cheaper machine methods. Still other economic problems are of immediate and acute interest to large groups. Such a one is that which has become known as the farm problem. Hundreds of thousands of farmers engaged in certain kinds of agriculture in this country have come to common agreement that the conditions by which they are confronted are such as to thwart them in their endeavors to make a satisfactory livelihood, and they have a common interest in changing these conditions. In addition to those problems which are of concern to very large elements of the population, there are those which affect directly everyone within a given political area. Such a problem is spectacularly presented when great armies are sent into the field to fight against foreign domination or to gain domination over the lives of people in other nations.

In striving toward a satisfactory livelihood, individuals, groups, and nations find obstacles, always have found obstacles, and are almost certain to find obstacles in the future. It is the examination of the obstacles which block people in their endeavors to make a satisfactory livelihood that constitutes the study of economic problems. In its ultimate detail it is a study of the members of the human race at work trying to realize all of their countless and divergent ambitions for more satisfactory livelihoods. In this volume the discussion of such problems is necessarily limited to those of direct concern to large

groups of people, and consequently of indirect concern to almost everyone.

The study of economic problems is extremely complex because the elements involved never stay fixed. In the gaining of a satisfactory living there is first the question of what is satisfactory. The answer to that question is constantly changing. What is satisfactory to one man or group of men is regarded as woefully meager by others, and what would have seemed a bountiful living a few years ago seems painfully cramped today.

In addition to the shifting notions of what is satisfactory, there are questions of the resources at hand, and the organization for directing those resources toward securing a living. The resources available for making a living are never fixed. A day never passes without recording a change in this factor. The daily newspaper with its chronicle of crimes, scientific discoveries, school commencements, wars, births, and weather changes, is an ever-present reminder that the resources which can be turned toward making a living are never twice the same.

The same thing is true of the way in which people are organized for applying their various ideas of what constitutes a satisfactory livelihood to the resources available. Once a very simple affair—perhaps largely a matter of the effective wielding of clubs, and the smart use of legs for running—this organization has grown in bulk and complexity until no man alive understands all of its details. And it is constantly subject to change. The corner grocery store suddenly emerges as a link in a great chain of stores. The worker comes home from his job, and announces that he has joined a union, and that henceforth he will deal with his employer through a business agent. The goldsmith, paid for guarding precious metals, turns banker and pays people for the privilege of taking care of their money. The history of man's struggles to make a satisfactory living is in no small measure an account of changing schemes of mobilizing the available resources to the end of securing a satisfactory living—an account of changes in economic organization.

In addition to the fact that the principal factors involved in the study of economic problems—*i.e.*, the ideas of what it is that constitutes a satisfactory livelihood, and the resources and organization to make those ideas effective—are always shifting, there is another complication. That is that all of these factors are tied together. No one of them can be successfully isolated and studied separately. The idea of what is a satisfactory living, for example, depends largely upon the resources at hand. In China, where the resources are quite different from those in this country, the idea of a satisfactory

life is also very different; or, to turn the proposition around, the resources in China are different because the Chinese have different notions of what it is that constitutes a satisfactory life. In this country at the present time the organization of business for private profit is very strongly entrenched and widespread. The existence of such organization directly affects the ideas of young people concerning the question of what is a satisfactory livelihood. Many of them envisage longingly the glories of being successful business men whereas their ancestors, perhaps born into an age when the church, an organization of righteousness, was dominant, found equal stimulation in contemplating the glories of heavenly rewards for piety.

The student of economic problems, then, should understand at the outset that he is dealing with a set of factors, all of which are variable, and all of which are related to one another. If this is kept in mind it may prevent a certain number of hasty conclusions, based on inadequate information.

The danger of such hasty conclusions is extremely great, for economic problems, being concerned with the question of making a livelihood, affect everybody, and almost everybody has opinions as to the way they should be solved. If these conclusions were all reached with a perfect degree of impartiality the chances of error would be very great on account of the extreme complexity of the questions being handled. As a matter of fact, however, most of them have an increased chance of error in that each represents only one of a wide variety of possible points of view.

These varying points of view in regard to the true solutions of economic problems generally arise from the varying economic interests of the people holding them. A worker, for example, is likely to see the problem of wage adjustment in a particular industry in terms of better clothing, better food, and a chance to see more movies. The employer, on the other hand, may view the question of the adjustment from the standpoint of its effect upon profits, or the ability of the industry to compete with rival enterprises. A third party may be convinced that there are dangers of race suicide, and so be interested in having workers receive sufficient pay to buy food for lots of babies. These varying points of view, which might be multiplied indefinitely for any specific problem, color the conclusions as to what ought to be done toward the solution of any one of them.

To those who are used to thinking of our economic society as a great coöperative system, this early emphasis upon conflicting economic interests may seem to distort the picture. It is true, of course, that the high degree of specialization to which we have attained—witness the specialized locomotive engineer, automobile mechanic, school

teacher, lawyer, opera singer—is possible only upon terms of the exchange of one specialized product for shares of other products. The bolt adjuster in an automobile factory can carry on his work only by trading bolt adjusting for food, clothes, housing, etc., furnished by other specialized workers and enterprises. Within this coöperative system of specialization, however, there is the continual clash of opinions as to what are the important economic problems and what ought to be done about them. While there is more or less general agreement upon the necessity of producing and distributing goods and services, the agreement ends there. Beyond that, in the realm of how and what should be produced and distributed and upon what terms, is the battlefield of conflicting interests and conflicting opinions. This fact must be continually kept in mind if most of the material making up the body of discussion of economic problems in any community is to be really intelligible.

To a person interested primarily in the mass machine production of physical goods, the United States today is a continual source of joy and satisfaction. Measured by that standard, it is inevitable that one should subscribe to the view of the late Judge Elbert H. Gary that "our country is the best of all." In partial support of that conviction he told the American Iron and Steel Institute in 1920 that "notwithstanding the United States has only six per cent of the world's population and seven per cent of the world's land, yet we produce 20 per cent of the world's supply in gold; 25 per cent of the world's supply of wheat; 40 per cent of the world's supply of iron and steel, lead, and silver; 50 per cent of the world's supply of zinc; 52 per cent of the world's supply of coal; 60 per cent of the world's supply of aluminum, copper, and cotton; 66 per cent of the world's supply of oil; 75 per cent of the world's supply of corn; and 85 per cent of the world's supply of automobiles." There are many, however, who, in the face of such an imposing show of productive power, would subscribe to Thomas Carlyle's observation that "America's battle is yet to fight. Their quantity of cotton, dollars, industry, and resources I believe to be almost unspeakable, but I can by no means worship the like of these." Such people would want to know more of the spiritual and æsthetic fiber of the United States before agreeing that "our country is the best of all."

The American workingman, by and large, is better fed, better clothed, better housed, and more amply equipped with artificial amusement devices than people in a similar position have ever been in the known history of the world. Conscious of this, however, there are those who agree with the assertion of Nathaniel Peffer that "in the life of the Chinese peasant or artizan there is a greater content of happi-

ness than in that of the modern American workingman." In support of this conclusion Peffer argues that "the Chinese works longer hours, yes: but he works at his own speed, undriven by an impersonal thing of iron over which he has no control. He stops when he likes for a puff at his tiny pipe or a cup of tea or a chat with his fellow-workmen or his children. If you go to his shop at sun-rise—his shop also being his factory and his home—you find him already at work; you find him still at work at nine or ten at night. Yet I believe that a fourteen or even a fifteen-hour day takes less tax of his strength, does less violence to nature's laws, than eight hours in a Ford plant. His work is back breaking, sometimes of seemingly incredible cruelty. Yet I believe it is less exhausting and stunts fewer instincts than eight hours of physical ease at turning a screw in a bit of steel whirring by on a belt. If he is a potmaker, he makes that pot himself. . . . He has the satisfaction of creating something himself; in it he has put at least a little of his personality." ¹

For any given point of view in the field of economics, as in all other fields for that matter, it is a relatively simple matter to devise a justification for the position taken. The worker seeking more pay can always muster a formidable array of reasons why his demands should be met. The employer, generally somewhat better equipped with education and access to hired pleaders, can amass an equally formidable array of reasons why nothing should be done to interfere with his claims to the proceeds from any given enterprise. Indeed, the art of justification is one of those in which men are most skilled, as will be evidenced from the following able justification of a rather generally disapproved practice, cannibalism. It was discovered by one signing himself "B. Beau" whom we may suspect of having known the Carib medicine man most intimately.

A DEFENSE OF CANNIBALISM ²

AMONG the papers of a missionary of the eighteenth century we once had the good fortune to discover the following pages. It is a speech that a piai or Carib medicine man addressed to his compatriots in protest against the anti-cannibalistic propaganda that the Christian was making among them. What deserves attention is the value of the reasons presented in favor of the cannibalistic custom and the energetic conviction with which this Carib affirms that it can never disappear.

"In all ages, as far back as the memory of the oldest men can reach, enemies killed in battle have been eaten and prisoners have been fattened

¹ From a review of William L. Chenery's *Industry and Human Welfare* by Nathaniel Peffer, *New Republic*, Oct. 18, 1922.

² From "A Defense of Cannibalism," *La Revue*, Paris, February 15, 1909.

into proper condition for killing. When a custom is so ancient it is not dependent upon the will of men. It is not an accident of their history, but a law of their nature, instituted by the gods themselves. Hearts too tender may deplore it, but against natural fatalities it is vain and puerile to wish to fight.

"The Necessity of this law will, besides, be clearly apparent to every unprejudiced mind. Suppose, for instance, that the tribes, refusing to eat one another engaged to live in peace, each upon its own territory. What would happen? All those whom our incessant wars cause to disappear would continue to live; the number of those having children would be incomparably greater than at present; the leisure afforded by the abandonment of warlike pursuits would incline still further the hearts of men to the pleasures of love. Because of all this the population would increase to proportions hitherto unknown. However fruitful might be our soil, however industrious might be our women, the country would soon become incapable of supporting all its inhabitants.

"In a word, those who protest against the custom of eating our enemies are blind if they do not see that the success of their doctrine would unchain civil war and condemn the members of the same tribe to eat one another.

"If we lost our taste for the flesh of the vanquished, wars would become rare; the sick, infirm, and aged would continue to live and weaken the population. The race would soon become ugly and the day would arrive when fine specimens of humanity might easily be numbered among us.

"I conclude; it is the liking for human flesh, the cause of wars, which keeps men up to the mark. It allows life only to the most valiant and enduring. It can be regarded therefore as the mainspring of human progress.

"I must add that those who preach such a doctrine are not merely perverse minds susceptible to deception, they are—whether they realize it or not—traitors to their tribe and deserve punishment.

"The essential difference between a compatriot and enemy is that it is a right and often a duty to eat the latter. To suppress this difference is to enfeeble the bond which unites the tribe. It will be still further enfeebled if we are made to believe that the day will come when one can go among strangers without risk of being eaten by them. If this doctrine spreads it will be at the expense of the love that is due to the tribe.

"It will also be at the expense of its power. Who cannot see that in a war we would be in a position of inferiority in comparison with our adversaries if while they remain cannibals we have renounced this manly, ancient and profitable custom? Enfeebled even by victories we would become, sooner or later, their prey.

"This is indeed the final result of an absurd doctrine. It is always fatal in the end to those who adopt it. Even desiring to renounce, under the pretext of humanity and pity, the custom of our ancestors would bring destruction upon us. Our women, our children, we ourselves, would contribute to the feasts of neighboring tribes.

"Repudiate then, Oyampis, these new ideas. Anti-cannibalism is a doctrine essentially chimerical. Men have always eaten one another; they will continue to do so in the future as they have in the past. And the best way to avoid being eaten ourselves is to enfeeble neighboring tribes as often as possible by liberal bloodletting."

Plunged into a field where there is a maze of conflicting opinions, each capable of justification, the student of economic problems is at once confronted by the question of the procedure to follow. Is he simply to amass all of the opinions about any given problem, juggle them in a hat, and subscribe to the first one that falls out, or is he to accept the opinion expressed most often or most loudly? Unfortunately the procedure is not so simple.

The student beginning the study of economic problems in a moderately systematic way has several difficult steps to take if his study is to be anything more than a buttressing of existing prejudices or a relatively meaningless survey of certain more or less interesting facts. He must learn, among other things, to distinguish between an opinion that something ought to be and a completed demonstration that it must be. For example, some very sincere people believe that the United States would be a better place to live in if there were a clear-cut regimenting of social classes, and a ruling caste of nobility. Other equally sincere people believe that life in this country would be more comfortable if everyone were on about the same economic plane and there were no rich and poor. Either of these is a defensible opinion, but it is just that and no more. People holding such opinions, however, easily slip into the habit of thinking that their opinions are nothing less than obvious deductions from fixed and immutable laws.

The student undertaking a study of economic problems must also learn to distinguish between an opinion that something ought to be and a practical demonstration that it can be. To continue the illustration used above, it is one thing to cherish the opinion that there should be no rich and no poor in the United States. It is quite another thing to bring that situation about. It is something that cannot be decided by the mere expression of opinions. It involves gathering and handling a mass of information, and upon the results of such a process depends the practical significance of the opinions in question.

In the United States there are a few revolutionists who would smash our present economic system on the chance that out of the wreckage something they would consider better might be evolved. They constitute a negligible group. Most of the opinion about what should be done to solve economic problems is confined to relatively

slight changes in the existing system, such as lowering or increasing the tariff, organizing an employers' association or a trade union, passing a child labor law, or stabilizing the price level. On the question of what should be done along these and similar lines there is no hope of obtaining absolute agreement, because there are too many conflicting economic interests. It is possible, however, to make some headway toward finding out what the present situation is and what can be done within the limits proposed by those holding conflicting opinions. For example, there are those who think it is foolish for the federal government to pay interest to borrow money when it controls the paper money printing presses of the country. Why, it is asked, should not the government print the money it needs instead of paying large sums in interest on borrowed money? This seems a shrewd question. Why not follow this advice? One reason, say those who consider this proposal fantastic, is that the financing of government projects by paper money issues would upset the entire price system and throw all of our economic machinery out of gear. They say that the possible saving in government interest payments would be more than offset by the general havoc paper money issues would cause. Who is right? It is possible to get much more than a hit or miss answer to this question by studying the history and operations of the currency, credit, and price system of the country.

If the study of economic problems is to lead to dependable conclusions it must be conducted with skill and integrity. Skill can best be acquired by observing how others have gathered and handled data on economic problems, and then by experimenting with improvements on prevailing methods. In the course of this volume a wide variety of methods used in amassing and mobilizing information are presented. No blanket judgment can be passed upon their merits apart from the particular problems with which they are concerned.

In seeking to attain an attitude of scientific integrity, the person undertaking the study of economic problems has an extremely difficult task, as such an attitude involves a willingness to search for all the evidence bearing upon a particular problem, and then a willingness to let the conclusion be guided by that evidence. One reason this attitude is so difficult of attainment is that, consciously or not, the beginning student is already crammed full of opinions concerning the righteousness of existing arrangements. He has read the newspapers which, in recording the news of the day, necessarily devote much space to economic problems. He has inevitably heard discussion of such problems. He has acquired, from what source he probably could not explain exactly, a fairly definite "slant" on the proper relations of wage workers and employers, on the question of "profiteer-

ing," on the reasonableness of the rates charged by the local gas and telephone companies, on the justice of the price of gasoline, and on the "socialists." If his economic interests and affections are closely identified with those of corporation lawyers he is probably inclined rather definitely toward one set of opinions about economic problems; if they are bound up with those of farmers or industrial workers there is probably an inclination toward a quite different set of opinions.

To attain to an attitude of scientific integrity or, as it is frequently called, the scientific point of view, it is necessary to submerge opinions and prejudices or at any rate to recognize them as such. The difficulty of doing this in the study of economic problems, where human factors are involved, is almost insurmountable. Take, for example, the economic problem of the effective use of negro labor in the South. How many people south of the Mason-Dixon line can analyze that problem dispassionately, make a diligent search for all the facts involved, and then temper their conclusions to the facts disclosed? How many people in California can handle the question of Japanese labor in the same way? How many "native sons" in the great cities of the North can discuss the economic problems involved in the great influx of "wops," "dagoes," "spics," *et cetera*, and keep their judgments free from their prejudices? The answer is, of course, very few, and only among these few are to be found persons temperamentally qualified to be thoroughly successful students of economic problems.

Short of such temperamental perfection there is, however, a middle ground somewhat less difficult to attain. That is the attitude of tolerance. Admitting a prejudiced viewpoint, bulwarked more or less by facts, the tolerant person realizes that some other point of view may be more nearly right, and so both countenances and respects opinions opposed to his own. Such an attitude of tolerance in the study of economic problems is the index of at least a modicum of good judgment and it is an absolute essential to good taste. It is an attitude which might be cultivated gracefully by students beginning this study.

The economic problems discussed in this volume are treated from a wide variety of points of view, not a few of them conflicting. In some cases the material presented is, in the parlance of the day, sheer "propaganda," that is, partial information about a given situation designed to line people up for or against a given course of action. Because of the extreme perplexities of modern economic life, the handling of economic problems affords a singularly fertile field for propagandists, and the output of their literature is almost without limit. In other cases the material presented is an example of the most scrupulous and painstaking effort to set forth as much relevant in-

formation about the problem in hand as is possible. It is impossible to grade and label all of the material presented. That is part of the student's job. He must see if he can winnow away the chaff and get somewhere near the elusive truth.

Because of the large number of authors quoted in this book, it is impossible to outline a set of definitions to aid the student in his reading. If it were possible to make such a set of definitions its usefulness would be very limited. That is because writings on economic problems are so diverse and authors so poorly organized that they use the same words to mean very different things. The much employed word "capital," for example, is used to mean almost everything from the amount of money subscribed by the stockholders of a corporation to all of the material resources of the world. This being so, it is necessary for the student to take care to discover just what the words in any piece of writing on economic problems are being used to mean. In the following dissection of a bit of railroad workers' jargon, an explanation of the meaning of certain words makes understandable what otherwise is hopeless jibberish. The reader of discussions of economic problems, for which definitions of general validity are impossible, may experience similar revelations by noting carefully how words are used.

DEFINITIONS ³

"WHEN she goes by jump on her, cut her in two and bring her head in here to the station."

"Tell the knowledge box what you're doin', then shuffle 'em up."

"Hitch a mill kettle and a doghouse and take Queen Marie fifty miles north."

That is a selection from one of the nationally known trade dialects that have become part of the American language. If you can talk "railroad" it will be as clear as Webster to you; otherwise you must start at the beginning with a "key."

The "key" goes this way: "She" is a train of cars; "her head" is the engine and cars immediately adjoining it; the "knowledge box" is the switchman's house; "shuffle 'em up" is an order to sort freight cars in their proper divisions; a "mill kettle" is an engine and a "doghouse" is a caboose; Queen Marie is the yard workers' name for an emergency crew so christened because of the easy nature of the work.

* * *

The discussion in this volume is presented with reference to three considerations which are basic to the analysis of economic problems. These considerations, already touched upon, are:

³ From the *Philadelphia Public Ledger*. Reprinted in "Railroad Data," a publication of the Committee on Public Relations of the Eastern Railroads, New York, N. Y.

- (1) The aims or aspirations of the individual or the community in question.

(Every person aspires to lead what to him is a satisfactory life. But what is satisfactory? As already noted, the definition of that word varies from person to person, from community to community, and from time to time. Before more than a blurred light can be thrown upon any particular economic problem it is necessary to take account, so far as possible, of what is sought in the way of a satisfactory livelihood. Difficult as this is in the present state of human knowledge, it is essential to a thorough analysis of economic problems.)

- (2) The human and material resources available for carrying out those aspirations.

(Some people are capable of working effectively with their heads and hands. Others are not. Sometimes bountiful animal, vegetable, and mineral resources are at hand to aid in the creation of material equipment that may further the realization of aspirations to lead a more satisfactory life. Sometimes there is a severe shortage of such resources. The absence or abundance of resources, both human and material, is, of course, a vital consideration in the discussion of economic problems.)

- (3) The organization for mobilizing and directing the available resources.

(One way of organizing economic activity might be that of having a dictator to tell everyone just what to do. The other extreme would be a situation in which there were no rules at all to guide people in their efforts to make a living. Between these extremes there is a vast variety of ways in which economic activity might be organized. In discussing any particular economic problem, the kind of economic organization in vogue is a vital part of the setting.)

It would be very convenient, for the sake of simplicity, if we could dispose of these considerations in turn. Unfortunately they are so closely tied together that this cannot be done without distorting the picture of economic problems. Consequently, throughout this volume there is necessarily an interweaving of discussion about aims, resources, and economic organization. This should not, however, blind the student to the desirability of dissecting economic problems along these

lines as an aid to clear analysis. Economic history is replete with instances where the analysis of an economic problem has failed to take adequate account of the limits imposed by the prevailing economic system, the available resources, or the aims of the people affected, and has consequently led to further and more serious problems, rather than in the direction of solutions.

At the outset we shall endeavor to learn something of the basic characteristics of our economic system and how they came into being. We shall find that a group of men, trying to solve some of the economic problems which followed in the wake of the War of Independence one hundred and fifty years ago, had a great deal to do with setting the foundations of our present economic system firmly in place. The particular problems they confronted are now history, but the economic system of that day remains essentially intact, and is a vital part of the setting of current economic problems.

Since the Constitution of the United States—a bulwark of our economic system—was approved by the forefathers in the late eighteenth century, the modes of carrying on economic life in the United States have been almost completely changed. Much of this change is due to the coming of the machine with its accompaniment of specialization, mass production, and group enterprise. The nature of these changes and something of their significance will engage our attention. We shall also examine the far-flung and complex marketing system, and the elaborate systems of commercial and investment credit which are part of the machinery of carrying on present-day economic life.

In the period when the foundations of our economic system were being set tightly in place, most of the people in a sparsely settled pioneer country were engaged in simple handicraft and agricultural pursuits. For about ninety per cent of them the problem of making a living consisted primarily in the individual or family enterprise of making the soil yield as much as possible. It was predominantly a system of production for direct use. Today we are a nation of specialists trading specialized products and services for money or credit with which to purchase the things necessary for our livelihood. Some of us are working for day wages under the direction of managers of corporations which have gathered together investments from thousands of people in all parts of the country. For the managers of such corporations, if they are to be successful, the principal aim cannot be solely the maximum production of a specialized product. It must be the acquisition of the maximum amount of money above the cost of doing business. This may or may not mean the maximum output,

depending upon a host of factors, of which we shall take account in considering the rise of a "regime of business."

The process of regimenting the population into different groups, some dependent for their livelihood solely upon the ability to perform one type of specialized labor, others directing the vast resources of corporate investors, and all primarily dependent for their success upon the amount of money they can acquire, has led some to contend that our economic system is out of date. They say that it was adequate to meet the requirements of a simple handicraft and agricultural community but that great inequalities in individual opportunities under present conditions, as well as the fact that profitable activities are not inherently righteous, make it necessary to overhaul the system. The nature of these complaints and the answers of those who disagree will be considered.

Those who hold that the economic system, bequeathed to us by the forefathers, is just as sound today as ever rest their case in substantial measure on the operations of the "law of supply and demand" which, they say, would mete out universal justice if not disturbed by stupid mortals. We will examine this argument in detail by considering the operation of our price system. In a community where most people are engaged in selling specialized products and services for money, the question of price is one of consuming interest. Consequently, much attention will be devoted to prices. There will be discussion not only of competitive price adjustment, prices where tariffs, "trusts," and government regulation are involved, but also general shifts in prices, with the attendant problems of "business cycles," and price stabilization.

Having studied the broad outlines of our economic system and something of how it works, we shall turn to a consideration of the benefits it confers upon the people contributing to its operation. We shall look into the nature of income, and some of the existing arrangements for its division among different groups. We shall find that there is apparently not enough income available to satisfy everyone, and a constant jostling of different groups who are trying to obtain larger shares. We shall consider the aspirations of different groups—farmers, wage workers, consumers, *et cetera*,—for more income and some of the methods they are using in an effort to make their "wishes come true." Finally we shall consider some present and proposed programs for easing the conflict between different groups for larger shares of income. These include limitations upon population growth by immigration and birth control, increasing the income to be divided by producing more and wasting less, and finally trying another kind of economic system.

QUESTIONS

1. Why is it perfectly safe to predict an abundance of economic problems for the future?
2. Thousands of people in the South are leaving farms and going to take jobs in the cotton textile industry. One man in commenting on this movement has said that the South is burying her Anglo-Saxons. Another is gratified because he says the abundant supply of relatively cheap labor from the farms means a rapid industrialization in the United States; (2) the relative business ability of by law because it means a reduction of rural population, and "farmers are the backbone of the country." Who is right? How do you know?
3. Does the fact that there are rarely final and conclusive answers to economic questions mean that possible solutions of them must be left largely to chance?
4. Is it possible to make a convincing argument that the national prohibition law is a great boon to the country; that it is a great curse? Outline a proceeding by which the validity of these opposing opinions might be tested. Would the test be absolutely conclusive? Explain.
5. Outline your opinion on (1) the desirability of trade union organization in the United States; (2) the relative business ability of Frenchmen and Americans; and (3) the relative desirability of living in Russia and in the United States. Set down the information on which you base your opinions; then indicate whether your opinions are founded on careful surveys of the facts involved or whether they are based largely on prejudice.
6. Is debating as it is conducted in American schools designed to develop what you understand to be the scientific point of view? Explain.

BUILDING THE FOUNDATIONS OF OUR ECONOMIC SYSTEM

THIS chapter will note that our economic organization is often described as one of "free private enterprise," to indicate that people are relatively free from legal restraints in their efforts to make a living, and will outline some of the reasons why this happens to be so. There will be a discussion of:

1. Some causes of the War for Independence from England.
2. The economic demoralization which followed success in that war.
3. The move for the formation of a strong central government which would
 - (a) Unify the country for trade purposes both at home and abroad.
 - (b) Assure adequate protection to threatened private property rights.
4. The counter move of those opposed to centralization of governmental authority.
5. The consequent adoption of a federal Constitution which
 - (a) Gave large scope to individual initiative by placing many restrictions upon governmental activity.
 - (b) Strongly intrenched the position of private property in this country.
 - (c) Provided for centralized control over foreign commerce and commerce among the states.
6. The adaptability of the kind of system of "free private enterprise" provided by the federal Constitution to the economic conditions of the country at the time it was adopted.

THOSE seeking terse phrases to characterize the kind of economic system we have in the United States frequently describe it as a system of free private enterprise. By that they generally mean that people are allowed to make a living in any way they see fit so long as they do not violate laws designed to promote or protect the public welfare.

For practical purposes such a generalization as this means very little. To be useful it should be supplemented by a full catalog of the laws of the land. And if such a catalog were compiled it would be only temporarily accurate because the laws are continually being changed. At each session of our numerous legislatures and courts the rules controlling economic activity are modified.

This change is of the type which makes the phrase "free private enterprise" continually less accurate as a characterization of our economic system. More and more the scope of private enterprise is being limited by the expanding volume of law designed to restrict the activity of the individual in deference to what is regarded as the welfare of the group. Many activities once quite unrestrained are now absolutely prohibited, if not entirely eliminated: for instance, the manufacture and sale of intoxicants. Others are progressively subject to more minute regulation of the services rendered and the prices charged. This is true, for example, of a large and expanding group of so-called "public utilities" such as railroads, telephone companies, and electric power and light companies.

Although the phrase "free private enterprise" becomes increasingly less accurate as a characterization of the economic organization we have in the United States, it still conveys an essentially correct impression. In spite of a growing number of exceptions, it is still true that people in the United States are relatively free from formal legal restraint in their efforts to make a living.

Many people think that this relative lack of restraint upon private enterprise in the United States is a great blessing. They say that it affords an opportunity for industrious people to forge ahead unhampered, that it assures to each the just rewards of his labors, and that under such an arrangement "you can't keep a good man down." There are others who think that there should be much more restraint upon private enterprise than there is at present. They say the present system simply licenses the exploitation of the poor and weak by the rich and powerful, that it leads to wanton destruction of human beings and natural resources in the pursuit of individual profit, and that the welfare of the group is continually subjugated to the welfare of the greedy and ruthless individual.

Neither of these extreme statements of the merits and defects of a system of free private enterprise is consistently true, although specific instances can be marshaled to bolster up either one of them. The *American Magazine* each month amasses evidence of the remarkable rise to fame and fortune of those whose beginnings were humble and discouraging. Such documents as the Interchurch World Report of the Steel Strike tend to tarnish the glowing picture of free private enterprise painted by that magazine. They suggest that, although technically every American boy has a chance to be president, he also has a chance, through no lack of enterprise and industry on his part, to spend his life at a dangerous, dirty, and ill-paid job.

Disapproval of the operation of our system of free private enterprise in the United States rarely goes to the extreme of advocating

that it be entirely abandoned and a new kind of system be adopted. Some views along this line will be presented in a subsequent chapter, but they are strictly minority views. Generally the criticism takes the form of advocating a change in detail to correct what is regarded as a specific weakness. Such, for example, are the continuing efforts to obtain legislation to protect women and children in industry, to readjust tax collections in accordance with the changing incomes of different groups, to regulate the prices charged by certain industries, or to raise standards of professional services and the quality of products sold to consumers who have no ready way of determining the quality of what they are buying.

The merits of the innumerable propositions for modification of our economic system can only be judged on the basis of the specific facts involved. An appeal to broad principles, while highly satisfying for speech-making purposes, is usually more confusing than helpful. A leader at the conference which finally led to the much criticized Treaty of Versailles is said to have remarked that "The trouble is that we are trying to make a treaty on the basis of principles when what we have to deal with is a mass of particulars." The remark was wise. It is the particular set of facts which is important in determining whether or not a specific change in any kind of system should be made.

A great deal of support for that conclusion is found in a study of the way in which our system of predominantly free private enterprise became firmly established. A study of that subject, with which this chapter will be largely concerned, will disclose that it was due to the labors of a group of practical men striving to solve an immediate and acute economic problem. It will indicate that their concern to impart a true and abiding group of principles of government to a worshipful posterity was more than balanced by their worries over the economic confusion into which this country had fallen immediately following the successful war for independence from Great Britain.

In order to understand that confusion it is necessary to have in mind something of the background of the American Revolution. At the time the Revolution broke out it is estimated that there were approximately 2,750,000 people in the British colonies, scattered along the eastern seaboard from Massachusetts to Georgia. The western outposts of organized economic life were in the foothills of the Appalachian mountains. Of this population, less than half of the present population of New York City scattered over an area several thousand times as large, well over 90 per cent were engaged in agriculture. The agricultural system, all of it primitive according to the

standards of today, varied widely in different parts of the country. It ranged from the Southern tidewater plantation type, where a great landlord directed an army of workers in the production of tobacco to be exchanged for European products, to the type where the frontier farmer, by the diversity of his crops and labors, gained virtually all of his living unassisted by the outside world. Of those not engaged in agriculture, less than 10 per cent of the population, some were making the primitive beginnings of the modern manufacturing system, most of them working along individual and handicraft lines. Others, a very important group in influence, were engaged in trade which took them all over the world from the prosperous cities along the Atlantic seaboard. In addition to these groups there was, of course, a body of people engaged in professions such as the law, medicine, and the ministry, whose economic success depended primarily upon the fortunes of the communities and groups with which they were identified. It is apparent that people engaged in making their livings in such divergent ways would have conflicting economic interests, and divergent views about the kind of governmental policy most likely to promote their welfare.

First let us consider an attitude prevalent among those engaged in agriculture during the decade just prior to the Revolution. After British success in the French and Indian war, concluded by the Peace of Paris in 1763, the immediate danger of formidable military attack was largely removed for most of the frontier farmers. When British troops were no longer required to protect their homes, these farmers had difficulty in seeing the justification of further British taxation. They were leading an independent and largely self-sufficient frontier life which left them out of touch with the settled communities along the eastern seaboard. They had, however, one very exasperating contact with these communities. That was through the land mortgage. Great landlords had purchased most of the frontier lands, and parceled them out to settlers on an installment-buying plan. The settlers chafed under the burden imposed by these mortgages, and hoped for some way to pay them with as little effort as possible. Otherwise, because of their isolation and their economic independence, they preferred to be left alone, and particularly to be left alone when their visitors were tax or mortgage collectors. Something of the problems and attitudes of the frontier farmer is indicated by the following extracts from a letter written by St. John de Crevecoeur, a Frenchman occupied as a frontier farmer in the province of New York. The editors think the letters "were probably written sometime between 1770 and 1774."

THE FRONTIER FARMER¹

by St. John de Crevecoeur

LET us follow one of these colonists in his progress towards the wilderness; he may well serve as an epitome by which we may judge of the rest. No sooner is he resolved than he takes all the information he can with regard to the country he proposes to go to inhabit. He at last goes to the capital and applies to some great landholders. He wants to make a purchase. Each party sets forth the peculiar goodness of its tracts in all the various possible circumstances of health, soil, proximity of lakes, rivers, roads, etc. Maps are presented to him; various lots are spread before him as pieces of linen in the shop of a draper. What sagacity must this common farmer have, first, to enable him to choose the province, the country, the peculiar tract most agreeable to his fortune; then to resist, to withstand the sophistry of these learned men armed with all the pomp of their city arguments!

He purchases fifteen hundred acres at three dollars per acre, to be paid in three equal yearly payments. He gives his bond for the same, and the whole tract is mortgaged as a security. On the other hand, he obtains bonds of indemnity to secure him against the miscarriages of the patent and other claims.

He departs with all his family, and great and many are the expenses and fatigues of this removal. He at last arrives on the spot. He finds himself suddenly deprived of the assistance of friends, neighbors, tradesmen, and of all those inferior links which make a well-established society so beautiful and pleasing. He and his family are now alone. On their courage, perseverance, and skill their success depends. There is now no retreating; shame and ruin would infallibly overtake them. What is he to do in all possible cases of accidents, sickness, and other casualties which may befall his family, his cattle and horses, breaking of the implements of husbandry, etc.?

I have purposely visited many who have spent the earliest part of their lives in this manner; now ploughmen, now mechanics, sometimes even physicians. They are and must be everything. Nay, who would believe it? This new man will commence as a hunter and learn in these woods how to pursue and overtake the game with which it abounds. He will in a short time become master of that necessary dexterity which this solitary life inspires. Husband, father, priest, principal governor,—he fills up all these stations, though in the humble vale of life. Are there any of his family taken sick, either he or his wife must recollect ancient directions received from aged people, from doctors, from a skilled grandmother, perhaps, who formerly learned of the Indians of her neighborhood how to cure simple diseases by means of simple medicines. The

¹ Adapted from *Sketches of 18th Century America*, by St. John de Crevecoeur, edited by Henri L. Bourdin, Ralph H. Gabriel, and Stanley T. Williams, Yale University Press, 1925, pages 62, 67, 70-76, 90-95, 124-5, *passim*.

swamps and woods are ransacked to find the plants, the bark, the roots prescribed. An ancient almanac, constituting perhaps all his library, with his Bible, may chance to direct him to some more learned ways.

Has he a cow or an ox sick, his anxiety is not less, for they constitute part of his riches. He applies what recipes he possesses; he bleeds, he foment; he has no farrier at hand to assist him. Does either his plough or his cart break, he runs to his tools; he repairs them as well as he can. Do they finally break down, with reluctance he undertakes to rebuild them, though he doubts of his success. This was an occupation committed before to the mechanic of his neighborhood, but necessity, giving him invention, teaches him to imitate, to recollect what he has seen. Somehow or another 'tis done, and, happily, there is no traveller, no inquisitive eye to grin and criticize his work. It answers the purposes for the present. Next time he arrives nearer perfection. Behold him henceforth a sort of intuitive carpenter! Happy man, thou hast nothing to demand of propitious Heaven but a long life to enable thee to finish the most material part of thy labours, in order to leave each of thy children an improved inheritance. Thank God and thy fate, thy wife can weave. This happy talent constitutes the most useful part of her portion. Then all is with thee as well as it can be. The yarn which thy daughters have spun will now be converted into coarse but substantial cloth. Thus his flax and the wool clothes all the family; most women are something of tailors. Thus if they are healthy, these settlers find within themselves a resource against all probable accidents.

His ingenuity in the fields is not less remarkable in executing his rural work in the most expeditious manner. He naturally understands the use of levers, hand-spikes, etc. He studies how to catch the most favourable seasons for each task. This great field of action deters him not. But what [shall] he do for shoes? Never before did he find himself so near going barefooted. Long wintry nights come on. It ought to be a time of inactivity and repose, considering the amazing fatigues of the summer. He has heard the children complain of sores and chilblains for want of shoes; he has leather, but no shoemaker at hand. He has, perhaps, a few lasts and some old tools; he tries to mend an old pair. Heaven be praised! The child can walk with them, and boast to the others of his new acquisition. A second pair is attempted; he succeeds as well. He ventures at last to make a new one. They are coarse, heavy, ponderous, and clumsy, but they are tight and strong, and answer all the intended purposes. What more can he want? If his gear breaks, he can easily repair them. Every man here understands how to spin his own yarn and to make his own ropes. He is a universal fabricator like Crusoe. With bark and splinters the oldest of the children amuse themselves by making little baskets. The hint being praised by the father is further improved, and in a little time they are supplied with what baskets they want.

Thus this man devoid of society learns more than ever to center every idea within that of his own welfare. To him all that appears good, just, equitable, has a necessary relation to himself and family. He has been

so long alone that he has almost forgotten the rest of mankind except it is when he carries his crops on the snow to some distant market.

Flourishing as we may appear to a superficial observer, yet there are many dark spots which, on due consideration, greatly lessen that show of happiness which the Europeans think we possess. The number of debts which one part of the country owes to the other would greatly astonish you. The younger a country is, the more it is oppressed, for new settlements are always made by people who do not possess much. They are obliged to borrow, and, if any accidents intervene, they are not enabled to repay that money in many years. The interest is a canker-worm which consumes their yearly industry. Many never can surmount these difficulties. The land is sold, their labours are lost, and they are obliged to begin the world anew.

It is vain to say: why do they borrow? I answer that it is impossible in America to till a farm without it. After being possessed of the land one must have a team and a negro. Three or four hundred pounds is but a trifling sum to what is sometimes requisite. It is true that with industry and health [settlers] will be enabled to pay off the greatest part of these sums in a few years, but life is so full of accidents that out of twelve that begin the world with a debt of three hundred pounds not above six perhaps will be able to pay it all in the first generation. These encumbrances, therefore, descend with the land, aye, even to the third generation. Happy [are they] when their pressure is such that they can be borne without selling the lands! Whoever, therefore, cursorily judges of our riches by the appearance of our farms, of our houses, of our fields, without descending to deeper particulars, judges imperfectly. He should feel the pulse of every farmer and know whether he is perfectly free.

The odds, however, are in favour of the American. With good luck and perseverance, he may live to clear his lands of useless wood as well as his title of heavy encumbrances. If he does that, he may then die with a peaceable conscience. He has acted his part as a good American ought to do. He has left an ample provision for his children. Who can wish for more in a country where we have neither bishops, counts, nor marquises? If he leaves them land paid for, and ability to work, they have the most ample inheritance.

We have abundance of roads, and they are repaired not by a tax, which would be better, but by six days' labour of the people. We hate taxes so much that our assemblies dare not venture upon the expedient, though I must confess that I had rather give twenty shillings a year than be obliged to work six days, and these monies properly laid out would do more good. But we cannot expect to enjoy every advantage. I think we have made most rapid strides, considering that the country was but a huge wilderness fifty years ago without a path.

In the future details which I intend to give you of our modes of living, of our different home manufactures, of the different resources which an industrious family must find within itself, you'll be better able to judge what a useful acquisition a good wife is to an American farmer, and

how small is his chance of prosperity if he draws a blank in that lottery! Don't blame us for living well. Upon my word we richly earn it. Were not we to consume all these articles which our farms produce, were they not converted into wholesome pleasant food, they would be lost. What should we do with our fruit, our fowls, our eggs? There is no market for these articles but in the neighborhood of great towns.

Some Europeans would, on reading these candid details, declare and swear that we deserve to be taxed. May those who thoughtlessly and without any real information advance such a doctrine, come over and be farmers with us one single year. I will then trust to their feelings. This was your early doctrine, too, until you attentively descended into every detail and saw the immense advances we are obliged to make, and the enormity of the price of our labours and the severity of our seasons. You were shocked the first time you saw ditchers and choppers at my table. Like a wise man you soon found that this was but the smallest difficulty which attends our rural operations.

The great masters of the Southern tidewater plantations had certain interests in common with the small frontier farmers. They could sympathize with the frontiersmen's interest in some easy way to pay their debts, as they too were head over heels in debt, principally to the British trading companies upon which they depended for marketing their great export crop, tobacco. While the Southern planters would have welcomed some method of unloading their debts to Europe, they, unlike the frontier farmers, were directly dependent upon foreign markets in disposing of their export crops. In disposing of these they wanted to have unrestricted trade channels, or, if trade was to be restricted, they wanted it restricted in their favor.

The wealthy merchants of the seaport towns whose ships scoured the seas for cargoes of rum, Oriental treasure, slaves, British calicoes, or anything else that could be handled at a profit, wanted primarily to be left alone to follow their own skillful devices. So long as they could carry on their trade under the protecting wing of Great Britain, and still not be burdened with regulations and assessments in return for that protection, they regarded their situation as quite fortunate. Their trade relations with Great Britain were close knit and profitable. Prior to 1763 they were not greatly hampered by trade regulations. There were plenty of them, to be sure, but they found it possible to ignore most of them.

The group engaged in handicraft occupations in the towns—carpenters, cobblers, blacksmiths, tailors, *et cetera*—had many views in common with the prosperous and wealthy traders upon whose success

the prosperity of the seaboard towns largely depended. Between these groups, however, there was an antagonism similar to that which is almost always found to exist between those who have little property and labor for a living, and those who have much property, and get others to work for them. These craftsmen, as well as the proprietors of small shops in country and town, shared with the frontier farmers a faith in democracy and human equality which was nourished by the pioneer character of the country. The observation made by a British visitor, writing from Annapolis, Maryland, in 1772, that "an idea of equality seems to prevail, and the inferior order of people pay little external respect to those who occupy superior stations"² was rather generally applicable in the colonies.

How these groups with their various conflicting interests would have adjusted their differences if they had been left free from British interference it is idle to speculate. In 1763 England abandoned what has frequently been described as the policy of "salutary neglect" and embarked upon the rigid enforcement of a decisive imperial policy. Before that time there had been an elaborate scheme of colonial regulation, worked out on paper, but as a matter of fact the American colonies had been left quite largely to their own devices. Now England inaugurated a program of regulating the colonies, to be enforced in fact as well as in theory. It involved the enforcement of trade and shipping regulations which had become largely a dead letter and the institution of some new ones, the imposition of heavier taxes to meet some of the expense incurred in protecting the colonies, some direction of the financial policies of the colonial legislatures, and more careful control of frontier lands.

Almost immediately after this new British colonial policy was put into effect the American colonies began to suffer from it. Some of the sufferings are detailed in the following statement by a contemporary writer who makes a vigorous and unquestionably partisan statement against the new British plan of regulation.

AN AMERICAN PROTEST AGAINST BRITISH REGULATION³

by John Dickinson

Our chief productions are provisions, naval stores, furs, iron and lumber. A few colonies yield tobacco and indigo. Some of these commodities are necessary to Great Britain; but all that she requires are

² *Letters from America, 1769-1777*, by William Eddis, London, 1792.

³ From *The Late Regulations Respecting the British Colonies on the Continent of America Considered*, Philadelphia, 1765.

vastly insufficient to pay for her manufactures which we want. The productions of some of the southern colonies may perhaps be equal to their demands, but the case is widely different with the northern; for in these, the importations from Great Britain are computed to be generally more than double the value of their immediate exportations to that kingdom.

The only expedient left us for making our remittances is to carry on some other trade, whereby we can obtain silver and gold, which our own country does not afford. Hence it is evident, if our taking off and paying for her manufactures is beneficial to Great Britain, the channels by which we acquire money for that purpose, ought to be industriously kept open and uninterrupted.

Our trade with Spain, Portugal and the foreign plantations in the West Indies have chiefly answered this end, though with much difficulty, the mother country having long since drawn the commercial cords with which the colonies are bound, extremely tight upon them. Everything produced here, that Great Britain chooses to take to herself, must be carried to that kingdom only—everything we choose to import from Europe must be shipped from Great Britain—heavy duties have been laid on our importations from the foreign plantations.

However, under all these restraints, and some others that have been imposed upon us, we have not till lately been unhappy. Our spirits have not been depressed. We apprehended no design formed against our liberty. We for a long time enjoyed peace, and were quite free from any heavy debt, either internal or external. We had a paper currency which served as a medium of domestic commerce, and permitted us to employ all the gold and silver we could acquire, in trade abroad. We had a multitude of markets for our provisions, lumber and iron. These allowed liberties, with some others we assumed, enabled us to collect considerable sums of money for the joint benefit of ourselves and our mother country.

But the modern regulations are in every circumstance afflicting. The remittances we have been able to make to Great Britain, with all the license hitherto granted or taken, and all the money brought among us in the course of the late war, have not been sufficient to pay her what we owe; but there still remains due, according to a late calculation made by the English merchants, the sum of four millions sterling. Besides this, we are and have been for many years heavily taxed, for the payment of the debts contracted by our efforts against the common enemy. These seem to be difficulties severe enough for young colonies to contend with. The last sinks our paper currency very fast. The former sweeps off our silver and gold in a torrent to Great Britain, and leaves us continually toiling to supply from a number of distant springs the continually wasting stream.

Thus drained, we are prohibited by new and stricter restraints laid on our trade, from procuring these coins as we used to do; and from instituting among ourselves bills of credit in the place of such portions of them as are required in our internal traffic; and in this exhausted con-

dition, our languishing country is to strive to take up and to totter under the additional burthen of the STAMP ACT. . . .

But it is unnecessary to endeavour to prove by reasoning on these things, that we shall suffer, for we already suffer. Trade is decaying; and all credit is expiring. Money is become so extremely scarce, that reputable freeholders find it impossible to pay debts that are trifling in comparison to their estates. If creditors sue, and take out executions, the lands and personal estate, as the sale must be for ready money, are sold for a small part of what they were worth when the debts were contracted. The debtors are ruined. The creditors get but part of their debts, and that ruins them. Thus the consumers break the shopkeepers; they break the merchants; and the shock must be felt as far as London. Fortunate indeed is the man who can get satisfaction in money for any part of his debt, in some countries; for in many instances, after lands and goods have been repeatedly advertised in the public gazettes, and exposed to sale, not a buyer appears. . . .

If these effects are produced already, what can we expect, when the same causes shall have operated longer? What can we expect, when the exhausted colonies shall feel the STAMP ACT drawing off, as it were, the last drops of their blood? From whence is the silver to come with which the taxes imposed by this act, and the duties imposed by other late acts, are to be paid? Or how will our merchants and the lower ranks of people, on whom the force of these regulations will fall first, and with the greatest violence, bear this additional load?

Although the British colonial policy after 1763 had a generally disastrous effect in the American colonies, the attitude of different groups of colonists toward it was not the same. The wealthy seaport merchants whom the new policy affected most immediately resented it as an unwelcome interference with their profitable trade, and protested vehemently. So far as can be determined, however, their protest was not intended as a threat that revolution was the alternative to elimination of the regulations. These merchants and traders were wealthy and generally prosperous. For continued prosperity they were dependent upon British naval strength and trading connections in England. They had little to gain and much to lose by revolting from England. What they did earnestly hope was that England would return to the policy of "salutary neglect" so far as their trading activities were concerned.

These wealthy merchants, well educated in the art of debate, protested so loudly and so convincingly, however, that other groups in the country began to take a keen interest in the new British regulations. When news of what was going on reached the frontier farmers they were particularly concerned. Regulation of the colonial shipping

trade seemed quite a remote issue as far as they were concerned, but added taxation, limitation upon the opening of frontier lands, and British restrictions upon paper money issues by colonial assemblies interested them vitally. As an isolated and largely self-sufficient group they saw few fruits of governmental activity, and consequently no occasion for increased or, for that matter, any taxation. The individual frontier farmer, as stated by William Graham Sumner in his volume on *The Financier and Finances of the American Revolution*,⁴ "saw little reason why he should pay anything to the commonwealth which to him was only an abstraction or, if he tried to make it concrete, was only a group of office holders whom he had never seen." The frontier farmers wanted cheap land, and were willing to undergo great hardships and risks to get it. Consequently restriction of frontier land opening was to them a major affront. For the land they owned they were largely in debt. Money to pay these debts was extremely scarce. There were no precious metal mines in the country, and the gold and silver which found its way into the country steadily disappeared in the direction of Europe to pay for supplies of which the colonists were in chronic need. This made money scarce and mortgage payments difficult to meet. To even the most untutored farmers a ready expedient was apparent. This was to print enough money to make it plentiful, thus making it easier to obtain, and mortgages could be met with less effort. Many farmers had sought continually to have the colonial assemblies accept this view. The colonial assemblies dominated largely by Eastern landlords and mercantile interests, had consistently refused. The frontiersmen still cherished hopes. Now England dashed their hopes by extending a paper money prohibition, once applicable only to Massachusetts, to all of the colonies. For the frontiersmen here was another fighting issue. And when the erudite city folks invented for them such slogans as "Taxation without representation is tyranny!" they were, after the rural manner of speaking, "rarin' to go," and to go for independence from England if need be.

The small craftsmen and mechanics of the towns were first attracted by the protests made against the new British policy by the "best people" in the towns—the wealthy and prosperous traders. To deliver harsh denunciations of Great Britain was the style in the best circles. The least that the more humbly situated craftsmen could do was to follow suit. Gradually, however, these people—"rabble" the wealthy merchants would probably have called them—began to enjoy protesting on their own account. Inspired by skillful agitators in the

⁴ *The Financier and Finances of the American Revolution*, Dodd, Mead and Company, New York, 1891.

towns and by the exuberance of the people in the frontier country, their protesting zeal quickly outdid anything even remotely anticipated by the wealthy merchants who had originally roused it. The "rabble" began to talk of the "natural rights" of free men, of patriotism to America rather than to England, of the solemn duty of revolt against what they characterized as acts of oppression.

The great Southern planters resented in the new policy the threat that the marketing of their products would be hampered. It is also probable that they saw in a more rigid domination of the colonies a thwarting of any colonial legislative devices which they might have perfected to ease the burden of their debts. It was probably clear to them that a stern Britain would not tolerate lax bankruptcy laws, and possibly such occasional practices as that when "the Treasurer and the Speaker of the Virginia House loaned more than 100,000 pounds without collateral security, or even personal notes, to his allies the great planters, who were overwhelmed by debts to their English factors. As most of the debts were repudiated, his confederates almost succeeded in a plan to transfer these bad debts to a public land office."⁵

Then, too, there was a factor in the mode of life of the Southern planters, not related to possible effects upon their fortunes, which prompted opposition to this new British policy. Over great territories and many people they were lords and masters. They lived on a scale which, although heavily mortgaged, contributed to a sense of great personal independence. The British program after 1763 was an affront to their independent spirit and dignity, as well as a source of economic embarrassment. They readily joined in the protest.

If the decision as to whether the colonies should revolt from England had been left to the wealthy seaport merchants, there is grave doubt that they would have advocated such an extreme step. What they wanted was "business as usual." To the hard-headed business men of Boston, New York, and Philadelphia the current talk about the "natural rights of man" generally seemed to be a lot of nonsense invented by reformers to inflame the masses who could be neither good workers nor customers so long as they strenuously concerned themselves about the rights conferred upon them by nature. The Southern planters, whose lives were a new-world model of the lives of English country squires, obtained most of their ideas of what was estimable from England, with which their connections, both in trade and social intercourse, were close. The carefree, devil-may-care spirit engendered by the kind of life they led tempted them to take a sportsman's chance

⁵ *Financial History of Virginia*, by William Z. Ripley, Columbia University, New York, 1891.

on a revolution as a thrilling adventure, but the decision to revolt did not ultimately need to be theirs. It was the farmers and mechanics who finally contributed the impetus that led to the break-away from England. With the aid of skillful organization and the blunders of headstrong British officials, these groups set upon independence as their goal and swept everything before them. Those who did not agree with their view that immediate independence was essential to the self-respect of the country, they stigmatized as lacking in patriotism. Against a well-developed propaganda that a particular move is patriotic, whether it be purchasing merchandise in your "own home town" or going to war in China, there is almost no successful counter irritant. When the idea of revolt became identified with patriotism in the minds of a majority of people, it only remained to get guns and ammunition to have a revolution.

It was the estimate of John Adams that throughout the Revolution at least one-third of the colonists were opposed to the American cause. It is certain that in this group were numbered a large proportion of the wealthy merchants who had given the Revolutionary movement its original impetus, not realizing where their hearty protest against British trade regulation would lead. Where it did lead was to the political ascendancy of what many a wealthy merchant might have characterized as a "mob of ruffians and low people." For this "mob"—mostly farmers and petty craftsmen—revolution had few physical or economic terrors and great possibilities of definite gains along the line of less taxation, cheaper land, release from debts, and, what was probably more important, greater social and economic equality. There were many wealthy people who staked their lives as well as great fortunes upon what they conceived to be the broad principles of justice involved. The rank and file of the Revolutionists, however, could not be said to have been composed of what were considered "the best people." Most of them had little property, they were not overburdened with respect for law and order, many of them were inoculated with radical ideas about social equality, and some even believed in the desirability of an equal division of property. It was such a group as this that was in political ascendancy at the successful close of the Revolutionary War.

At the end of the war there was widespread expectation of the coming of a new and brighter day. It did not come. On the contrary, there immediately arose all manner of difficulties. For one thing, British manufactures, which war had made difficult of importation, began to flood the country. They were sold at bargain prices. This ruined American manufacturers who had set up in business on account of the lack of European competition during the war. The gold supply

of the country, augmented during the war by purchases for the British army, was quickly drained off to pay for post-war imports. This furthered the process of currency demoralization started by emergency methods of financing adopted during the Revolution. Those in charge of this financing had had three alternatives. One was to borrow abroad. This was narrowly limited by the dubious financial outlook of the warring colonies. Another was taxation. But it was almost impossible to convince people who were fighting part of their battle against British taxation that they themselves should be taxed to support such a war. The third alternative, and the one most widely employed, was to print paper money. This printing process had been carried on to such an extent that the federal currency was virtually worthless. The bonds which the Revolutionary War financiers had succeeded in selling were looked upon with much suspicion, and were quoted at anywhere from one-sixth to one-twelfth of their face value.

The uncertain state of the union, largely the result of the limited powers granted to the confederation government by the states, had many evil consequences. One was the difficulty it added to the already difficult program of making satisfactory trade treaties with European countries. The central government of what was generally regarded in Europe as an upstart nation could hardly hope to command respect abroad when it commanded little at home. It was also without power to prevent the states from setting up trade barriers against each other, and this was done, to the serious annoyance of domestic commerce.

All of these factors contributed to a severe economic depression which set in in 1785 after a brief post-war period of prosperity. Some of the conditions leading to and attending this situation are briefly sketched in the following statement:

REVOLUTION AND ECONOMIC DEPRESSION ⁶

by Emory R. Johnson

THERE was a pronounced revival in trade, particularly in foreign commerce, at the close of the Revolution. As sometimes happens after a war which has compelled many forms of business to suspend for some years, men were more than usually active and hopeful in trade and industry. All desired to regain lost ground, make up for lost time in production, or by pushing trade and extending credit to dispose of the stock of goods that had accumulated during the war. At such times the consumer who has practiced enforced abstinence for a long time is an eager buyer and is often more optimistic as to the payment of his bills than his financial means justify.

⁶ From *History of Foreign and Domestic Commerce in the United States*. Published by the Carnegie Institution of Washington, 1915, pages 135-136.

The American States afforded a good market in 1783 and 1784, and one that the British merchants were eager to enter. The market was good, not only for the psychological reason just cited, but also from the fact that there was then a relatively large supply of coin in America. This stock of the precious metals had accumulated in the United States as a result of the shipments of coin made by Great Britain and France to maintain their armies and fleets. As the Americans could buy little abroad, the gold and silver remained in the country until the close of the war.

The people of the United States were not strong enough industrially and stimulated the flow of British goods into America. Moreover, British producers and merchants had large stocks of goods on hand as the result of the interruption of trade for several years, and over-selling readily followed. The purchasing power of Americans was overestimated, and credit was unduly expanded. But little time was required for the real condition of America, economically and politically, to become manifest. The people of the United States were not strong enough industrially and financially to compete successfully with Europe. The successful development of American industries during the years of the war, when all competition with Europe was prevented by the practical cessation of trade, had deluded the people of the United States as to their real and relative economic condition. Two years of free and active trading with Europe during 1783 and 1784 were sufficient to undermine many of the industries that had grown up to supply the markets secured to them by the protection afforded by the war.

In 1785 the panic came. The monetary situation was deplorable, not only because the coin had been exported to pay for imported goods, but also from the fact that the Confederation had no authority to coin money and to establish a uniform system of currency. Each state still had the power to issue money, and many of them sought to relieve the situation of 1785 and 1786 by putting out paper money. The industries suffered severely from the loss of the markets that were now more than adequately supplied as regards many articles by the importations from Europe, mainly from England. American merchants had become embarrassed and were unable to pay for the goods they had bought on credit. The situation of both producers and traders in the United States was made much worse by the closing of the British West Indies to American shipping.

To solve the problems of the depression, many extreme proposals were made in the various states where the "radicals" who had brought the revolutionary issue to a head and fought it through to a successful conclusion were still largely in control. In the state legislatures there was continual agitation in favor of having the states print more paper money to make payment easier for those in debt, to increase prices,

and boom trade generally. Those sympathetic with such a policy controlled the legislatures in many of the states. In Massachusetts, where the legislature rejected the plan of printing paper money, there was serious rebellion under the leadership of a man named Shays. There was talk of laws wiping out all debts, and plans for the permanent elimination of all taxation were enthusiastically discussed. Such doctrines found a considerable reception among large elements of the population in which war experience had tended to undermine respect for property and law and order. In the South there were even rumblings of slave rebellions. If such conditions were allowed to continue almost anything might happen. Historians have called this "the critical period" in the career of the United States. It was at least one critical period. Something of the temper of the times is reflected by the following statement of a contemporary writer:

WAR AND SOCIAL DEMORALIZATION ⁷

by David Ramsay

To overset an established government unhinges many of those principles, which bind individuals to each other. A long time, and much prudence, will be necessary to reproduce a spirit of union and that reverence for government, without which society is a rope of sand. The right of the people to resist their rulers, when invading their liberties, forms the cornerstone of the American republics. This principle, though just in itself, is not favorable to the tranquility of present establishments. The maxims and measures which in the year 1774 and 1775 were successfully inculcated and adopted by the American patriots, for oversetting the established government, will answer a similar purpose when recurrence is had to them by factious demagogues, for disturbing the freest governments that were ever devised.

War never fails to injure the morals of the people engaged in it. The American war, in particular, had an unhappy influence of this kind. Being begun without funds or regular establishments, it could not be carried on without violating private rights; and in its progress, it involved a necessity for breaking solemn promises, and plighted public faith. The failure of national justice, which was in some degree unavoidable, increased the difficulties of performing private engagements, and weakened that sensibility to the obligations of public and private honor, which is a security for the punctual performance of contracts. . . .

On the whole, the literary, political, and military talents of the citizens of the United States have been improved by the revolution, but their moral character is inferior to what it formerly was. So great is the change for the worse, that the friends of public order are loudly called

⁷ From *The History of the American Revolution*, Philadelphia, 1789.

upon to exert their utmost abilities, in extirpating the vicious principles and habits, which have taken deep root during the late convulsions. . . .

* * *

It seemed certain to several influential groups that the country was in danger of complete demoralization. Without decisive action to check the paper money craze there could be little safe investment in any kind of securities, and little business could be conducted on other than a barter basis. Unless the central confederation government were given power enough over the states to command respect abroad, there was slight hope of favorable commercial treaties, without which foreign trade was certain to languish. And unless the power of the states to make their own tariff laws was curbed, hope of a nation united commercially would quickly vanish. Also, so long as the federal government depended for financial support on the good-will offerings of the states, it seemed clear that it could have no safe independent existence, and also that its securities, issued to finance the war, and held by investors and speculators throughout the country, would not return to par. Some of the devastating effects of the lack of a stable government are set forth in the following letter written in 1787:

"The states neglect their roads and canals, till they see whether those necessary improvements will not become the objects of the national government. Trading and manufacturing companies suspend their voyages and manufactures till they see how far their commerce will be protected and promoted by a national system of commercial regulations. The lawful usurer locks up or buries his specie until he sees whether the new frame of government will deliver him from the curse or fear of paper money and the tender laws. . . . The public creditor, who, from a deranged state of finances in every state and their total inability to support their partial funding systems, has reason to fear that his certificates will perish in his hands, now places all hopes of justice in an enlightened and stable national government."⁸

To those who were largely self-sufficing in making their living, such as the frontier farmers, the absence of a strong central government was not tremendously alarming. So long as land was cheap, and it tended to be cheaper than otherwise in the absence of such a government, and so long as there was hope of adopting plans to make it easy to pay off mortgages, they were not gravely exercised over the uncertain state of the union.

Those, however, whose incomes came largely from property and trade were gravely alarmed. If the radical tendencies of the day were

⁸ From a letter from Philadelphia published in the *Connecticut Courant*, Sept. 10, 1787. Reprinted in *An Economic Interpretation of the Constitution of the United States*, by Charles A. Beard, The Macmillan Company, New York, 1913, page 53.

to prevail, the whole structure of private property rights might be undermined. Securities with interest and principal payable in currency would certainly be rendered worthless if enough currency were printed. Spared this evil fate, it was possible that radicals, ascendant in the state legislatures, would decide that the public welfare demanded a cancellation of all debts, or possibly even an equal division of property. This was sometimes advocated on the ground that there had been an equal sharing in the burdens of the Revolutionary War, and that consequently there should be an equal sharing of the available fruits of victory. Conscious of the existence of such doctrines, James Madison, who later became president of the United States, remarked that "symptoms of the leveling spirit have sufficiently appeared in certain quarters to give notice of the future danger." The successful transaction of business in the face of such obstacles as these, as well as the lack of commercial unity at home and abroad, seemed quite out of the question.

Under such circumstances, a substantial group of property owners and business men felt that a strong measure was needed. The measure which they proposed was the Constitution of the United States, the document which with its subsequent amendments and court interpretations, forms a cornerstone of the economic organization of this country. The Constitution, of course, was not proposed as a means of creating anew a particular kind of economic organization favored by its advocates. An economic organization, borrowed in part from years of experience in European countries and developed in part to meet the conditions of a pioneer country, was already in existence. Its stability, however, seemed to many influential citizens to be seriously menaced by the course of events following the Revolution, and it was, in substantial measure, the hope of eliminating this threat that prompted the Constitutional Convention of 1789.

The formation of the Constitution is often treated as the result of the disinterested labors of a group of statesmen intent upon welding abstract principles of government into a flawless theoretical design. The balance of powers in the federal government, for example, is often regarded as a brilliant abstraction which the framers of the Constitution worked out without regard to their immediate interests and problems. That this is not the way they went about it subtracts nothing from the brilliance of what they actually accomplished.

The balance of powers in the federal government was but one of the devices adopted by the Constitution framers to thwart those tendencies which threatened to undermine the whole structure of private property rights. A Senate, elected by the state legislatures for terms of six years, would act as a check upon possible excesses of the House of

Representatives, a body to be popularly elected and likely to be swayed by the prejudices of the masses. The executive would check and be checked by these bodies. And lest that should not prove check enough upon any action subversive of existing rights, the judiciary, its guide being the Constitution itself, would add a final check. By such an arrangement it seemed reasonably certain that an excess of popular zeal of the types previously described, could be restrained.

To this carefully balanced federal government the framers of the Constitution proposed to give certain important powers. It was provided that "Congress shall have the power to lay and collect Taxes, Duties, Imposts, and Excises," an essential power if the federal government were to be relieved of its paralyzing dependence upon the states for voluntary money grants. The federal government was also given power to "regulate commerce with foreign nations, and among the several states, and with the Indian Tribes." This provision, coupled with the prohibition of state "duties and impost on imports and exports" and denial of power to the states to make treaties, would eliminate the devastating state restrictions upon domestic commerce and enable the states to act as a unit in making commercial treaties with foreign countries. Federal tariff laws, a continuous center of controversy for the past century, were grounded on the power of the federal government to regulate foreign commerce.

In view of the rather reckless character of the times, the framers of the Constitution were well aware of the danger of revolts similar to that led by Shays in Massachusetts. Prompted perhaps by this condition, they provided that Congress should have the power "to raise and support armies" and "to provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions." In addition, it was provided that the federal government should have power to "provide for the common defense" and to make war.

As has been suggested, one of the most prevalent enthusiasms among the mass of people was that for printing paper money. To quell this, it was provided by the Constitution that the states should be denied the power to "make anything but gold and silver a tender in payment for debts." This provision was primarily designed to give security to investments in mortgages, bonds, and other promises to pay against a possible flood of paper money. Another prevalent threat of the times against substantial property owners and creditors was that the state legislatures, in the control of radicals, might pass laws canceling existing debts, such as bonds and land mortgages. To eliminate this danger a section was inserted in the Constitution which provided that "no state . . . shall pass any law impairing the obligation of con-

tract." This meant, in the event of adoption of the Constitution, that any efforts at "leveling" property holdings at the expense of the creditor class would quickly encounter the strong arm of the federal government.

There were other provisions of the Constitution which were of immediate interest to the group of solid business men and large property owners framing it. One such provision directed that the new federal government take over and pay the debts of the confederation government. This meant that if the Constitution were adopted there would be an excellent prospect that confederation bonds, quoted at one-sixth to one-twelfth of their face value when the Constitution was being drawn, would be paid in full. The advantage of such a provision to holders of these bonds, who were not without representation in the Constitutional Convention, is obvious.

The framers of the Constitution had set about their task without authority to do more than consider and recommend modifications of the Articles of Confederation. When they finished their labors they had drafted an entirely new scheme of government, a scheme designed to restore law and order through the agency of a powerful central government, to give adequate protection to private property rights, and to provide national unity in the control of foreign commerce and commerce among the states.

In view of the severe restrictions upon state power embodied in the Constitution, it must have seemed certain to the framers that they could not hope to have the document ratified by the state legislatures. Whatever their fears were on this subject, they decided not to submit it to the legislatures, as provided by the Articles of Confederation, but to have special ratifying conventions named. It was by such conventions and after a bitter controversy that the Constitution was ratified. It is estimated that not over twenty-five per cent of the adult white males in the country participated in electing delegates to these conventions. It is frequently contended that had there been a 100-per cent vote, the Constitution would have failed of ratification on the ground that it was too much a bulwark of property rights, and too severe in its emphasis on centralization in government.

In the process of ratification ten amendments, designed primarily to guarantee to the people certain rights against possible encroachment by the federal government, were added. The first of these provides that "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of their grievances." By the Fourth Amendment it is provided that "the right of the people to

be secure in their persons, houses, papers, and effects against unreasonable searches and seizures shall not be violated." Adopted to give assurance that the Revolution had permanently eliminated anything akin to a system of royal spies and inquisitors, this amendment is now evoked by bootleggers arrested without search warrants, and corporations faced with court orders to produce their records. Such has been the march of events since the days when Constitution ratification was a burning issue. The Fifth Amendment providing among other things, that "no person shall . . . be deprived of life, liberty or property without due process of law, nor shall private property be taken for public use without just compensation," was designed to bulwark private property rights against interference by the federal government. Lest the new federal government should seek to expand its powers by adding certain other powers not specifically awarded to it, those fearful that it might tend to become careless of the rights of the people insisted on adoption of the Ninth and Tenth Amendments. One of these provided that "the enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people;" the other that "the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

The first Ten Amendments, commonly known as the "Bill of Rights," reflect the popular fear that the federal government might use its power to suppress what seemed to be the new-won freedom of the people. The framers of the Constitution were fearful of the excesses to which the enthusiasms of popular majorities might lead, and sought to guard against possible results of such enthusiasms by specific provisions in the Constitution. The opposing fear of possible abuses of power by the federal government resulted in the adoption of definite checks upon that government in the form of the first ten amendments. The result, of course, was an extensive limitation upon the scope of governmental activity, and an enlargement of the field of individual activity protected from governmental interference.

Since the adoption of the first ten amendments to the federal Constitution, nine others have been added. One of the most important of these is the Fourteenth Amendment, providing, among other things, that no state shall "deprive any person of life, liberty, or property without due process of law." This amendment was added following emancipation of slaves in this country, presumably to check possible legislative attempts in the Southern states to interfere with the newly created rights of negroes. It has since been used by the courts as a warrant to review all state legislation which is challenged as infringing any kind of private property rights. With the continual expansion

of the definition of private property, this affords the basis for court review of a very wide range of state legislation.

If the framers of the federal Constitution should find it possible to attend a current term of the United States Supreme Court, they might well wonder whether the decisions being rendered refer to the same document which they prepared to meet what they conceived to be the problems of the seventeen-eighties. They would probably not have the slightest conception of most of the problems being discussed. They would be bewildered, for example, by such an argument as that which might be made over the question of whether a law permitting picketing by labor unions takes "without due process of law" the property rights of an employer.

While the Constitution framers would unquestionably be baffled by the details of many of the problems of constitutional interpretation which arise today, they would probably find that the essentials of the plan developed in their day remain intact. These essentials included (1) a strong central government, independent of the states financially, and possessed of exclusive power to control foreign relations and commerce among the states; (2) the firm entrenchment of private property rights by an elaborate set of checks and balances in the federal government, and by a definite prohibition of certain possible state assaults on private property rights; and (3) a large number of definite limitations upon governmental power, to protect the rights of individuals.

The significance of the protection afforded to private property by the Constitution depends upon two considerations. One is the nature of private property; the other is the extent of protection accorded to it. It is impossible to make helpful generalizations about either because of the fact that they are constantly subject to change as the result of court decisions and legislative enactments.

By way of generalization it has sometimes been asserted that property is "the aggregate of rights in a thing which the government acknowledges and protects." To be helpful, such a statement must be supplemented not only by a catalog of the rights of property but also by one of the things which are classed as property. Such catalogs are always changing, depending for their contents, among other things, upon the time, the place, and the particular group in power.

Prior to the Civil War, property rights in human slaves were acknowledged and protected by the government. As a result of that war, property rights in slaves were eliminated so far as the law is concerned. At one time in Europe wives were generally regarded as chattels of their husbands. This form of property has now been eliminated almost completely. At the time the Constitution was adopted the property rights in question related largely to such easily

comprehended things as houses, farms, ships, money and mortgages. Since that time forms of property have been expanded to include vague and intangible things such as "good will" and the continued access of manufacturers to their customers.

In some cases the rights accorded to particular kinds of property have been greatly restricted, as for example, those of property devoted to public transportation service where extensive government regulation prevails. In other cases the rights accorded to certain kinds of property have been extended.

For a full understanding of property and property rights, which will be discussed somewhat more fully in Chapter XX, the only recipe is a lifelong study of the history of law and its current development. That, coupled with a full appreciation of the social and economic pressure which in turn shapes the law, might lead to a mastery of the ever-shifting classifications of property and property rights.

The question of the amount of protection which those in power wish to have afforded to property is intimately related, of course, to the question of what is classed as property. If, for example, it should be decided at some future date that wage earners have property rights in their jobs, some employers who now demand rigid protection of all kinds of property might begin to discriminate between the kinds of property entitled to protection. Enthusiasm for the protection of private property necessarily depends upon approval of the classification of property involved. This relation between the nature of private property and the pressure of particular groups endeavoring to secure its protection is suggested by the following analysis of the safeguards to private property provided by the Constitution.

THE ENTRENCHMENT OF PROPERTY IN THE UNITED STATES ⁹

by Arthur T. Hadley

PRIVATE property in the United States, in spite of all the dangers of unintelligent legislation, is constitutionally in a stronger position, as against the government and the government authority, than is the case in any country of Europe. However much public feeling may at times move in the direction of socialistic measures, there is no nation which by its constitution is so far removed from socialism or from a socialistic order. This is partly because the governmental means provided for the control or limitation of private property are weaker in America than elsewhere, but chiefly because the rights of private property are more formally established in the Constitution itself.

It was in the first place provided that there should be no taking of

⁹ From an article in the *Independent*, April 16, 1908.

private property without due process of law. The states' rights men feared that the federal government might, under the stress of military necessity, pursue an arbitrary policy of confiscation. This constitutional provision prevented the national legislature or executive from taking property without judicial inquiry as to the necessity, and without making full compensation even in case the result of such inquiry was favorable to the government. No man foresaw the subsequent effect of this provision in preventing a majority of voters from disturbing existing arrangements with regard to railroad building or factory operation until the railroad stockholders or factory owners had had the opportunity to have their case tried in the courts.

There was another equally important clause in the Constitution providing that no state should pass a law impairing the obligation of contracts. In this case also a provision which was at first intended to prevent sectional strife and to protect the people of one locality against arbitrary legislation in another became a means of strengthening vested rights as a whole against the possibility of legislative or executive interference. Nor was the direct effect of these two clauses in preventing specific acts on the part of the legislature the most important result of their existence. They were a powerful means of establishing the American courts in that position of supremacy which they enjoy under the Constitution. For whenever an act of the legislature or the executive violated, or even seemed to violate, one of these clauses, it came before the courts for review. If the federal courts said that the act of a legislature violated one of these provisions it was blocked—rendered powerless by a dictum of the judges.

The rights of individual owners against legislative interference were thus most fully protected. But how was it when property was in the hands of corporations?

Here also the power of control by the government was weakened and the rights and immunities of the property holders correspondingly strengthened by two events, whose effect upon the modern industrial situation may be fairly characterized as fortuitous. One of these was the decision in the celebrated Dartmouth College case in 1819; the other was the passage of the Fourteenth Amendment to the Constitution of the United States in 1868.

I call their effects fortuitous, because neither the judges who decided the Dartmouth College case nor the legislators who passed the Fourteenth Amendment had any idea how these things would affect the modern industrial situation. The Dartmouth College case dealt with an educational institution, not with an industrial enterprise. The Fourteenth Amendment was framed to protect the negroes from oppression by the whites, not to protect corporations from oppression by the legislature. It is doubtful whether a single one of the members of Congress who voted for it had any idea that it would touch the question of corporate regulation at all. Yet the two together have had the effect of placing the modern industrial corporation in an almost impregnable constitutional position.

In 1816 the New Hampshire legislature attempted to take away the charter rights of Dartmouth College. Daniel Webster was employed by the college in its defense, and his reasoning so impressed the court that they committed themselves to the position that a charter was a contract; that a state having induced people to invest money by certain privileges and immunities, could not at will modify those privileges and immunities thus granted. Whether the court would have taken so broad a position if the matter had come before it thirty or forty years later, when the abuses of ill-judged industrial charters had become more fully manifest, is not sure, but, having once taken this position and maintained it in a series of decisions, the court could not well recede from it. Inasmuch as many of the corporate charters granted by state legislation had an unlimited period to run, the theory that these instruments were contracts binding the state for all time had a very important bearing in limiting the field within which a legislature could regulate the activity of such a body, or an executive interfere with it.

Again, by the Fourteenth Amendment to the Constitution of the United States every state was forbidden to interfere with the civil rights of any person or to treat different persons in an unequal way. This amendment to the Constitution, passed just after the close of the Civil War, was intended to prevent the Southern states readmitted, or on the point of being readmitted, to the Union from abridging the rights of the negro members of the commonwealth. A number of years elapsed before the effect of the amendment upon the constitutional position of railroad and industrial corporations seems to have been fully realized. But in 1882 the Southern Pacific Railroad Company, having been, as it conceived, unfairly taxed by the assessors of a certain county in California, took the position that a law of the state of California taxing the property of a corporation at a different rate from that under which similar property of an individual would be taxed was in effect a violation of the Fourteenth Amendment to the Constitution, because a corporation was a person and therefore entitled to equal treatment. This view, after careful consideration, was upheld by the federal Courts. A corporation, therefore, under the law of the United States, is entitled to the same immunities as any other person; and since the charter creating it is a contract, whose obligation cannot be impaired by the one-sided act of the legislature, its constitutional position as a property holder is much stronger than anywhere in Europe.

Under the circumstances, it is evident that large powers and privileges have been constitutionally delegated to private property in general and to corporate property in particular. I do not mean that property owners, and specifically the owners of corporate property, have more *practical* freedom from interference in the United States than they do in some other countries, notably in England. Probably they do not have as much. But their theoretical position—the sum of the conditions which affect their standing for the long future and not for the immediate present—is far stronger in the United States. The general

status of the property owner under the law cannot be changed by the action of the legislature or the executive, or the people of a state voting at the polls, or all three put together. It cannot be changed without either a consensus of opinion among the judges, which should lead them to retract their old views, or an amendment of the Constitution of the United States by the slow and cumbersome machinery provided for that purpose, or, last—and I hope most improbable—a revolution.

When it is said, as it commonly is, that the fundamental division of powers in the modern state is into legislative, executive and judicial, the student of American institutions may fairly note an exception. The fundamental division of powers in the Constitution of the United States is between voters on the one hand and property owners on the other. The forces of democracy on one side, divided between the executive and the legislative, are set over against the forces of property on the other side, with the judiciary as arbiter between them; the Constitution itself not only forbidding the legislature and executive to trench upon the rights of property, but compelling the judiciary to define and uphold those rights in a manner provided by the Constitution itself.

* * *

Within the limits of the system of government set up by the Constitution, it was assumed that individuals would be free to endeavor to make their livings as they saw fit. In other words, there would be "free private enterprise," free so long as it did not run afoul of the laws of the land. These laws, of course, were much more extensive than the federal Constitution with which we have been primarily concerned. There was a great body of "common law," so called, which had been transplanted from England. This was simply a vast accumulation of court-made rules, drawn from many centuries of court experience in adjusting controversies. They were the rules which courts, on the basis of what had been done in the past, would probably apply in given disputes if there were no written statute to guide them. In addition to the "common" or "unwritten" law, there was also an extensive array of state statutes, passed by the colonial assemblies, and then taken over and amplified by the state legislatures. When the federal Constitution was adopted, however, it provided the keystone of the legal system. Existing laws must either conform to it or be abandoned.

After the heat of the controversy over ratification of the Constitution had passed and the country began to recover from its post-Revolutionary unrest, the widespread popular interest in radical upheavals subsided. Under the improved commercial system made possible by the adoption of the federal Constitution, and under the stimulation of large orders for supplies from warring Europe, prosperity returned. The minds of many people who had little property turned from worry over

that fact to the possibility of acquiring more. Because of the prodigious resources of the country and the shortage of man power, the opportunity for all except those bound by slavery or indenture was good. Before long it again seemed to most Americans that the best arrangement was to be left alone with the bounteous resources at hand, and to be allowed to have and to hold what one was able to acquire as the result of his labors. The argument, made by those who most strenuously urged the adoption of the Constitution, that the adequate protection of private property is a first essential of sound government, found many adherents in all classes when it was again seen that possession of a substantial amount of property was within the reach of virtually every diligent and courageous free man.

What did it matter if the Constitution seemed to favor some groups more than it did others? Its provisions protecting property and its equally important limitations upon the scope of governmental activity were at peace with a time when individual enterprise had promise of being rather promptly rewarded with a comfortable estate. Thus the abundant economic opportunities of the time vindicated the framers of the Constitution and made a system of "free private enterprise," bottomed on the right to have and to hold property acquired by such enterprise, a popular arrangement. By "popular" it is not implied that all classes and groups turned from quarreling with one another to competing in their praises of the governmental scheme worked out by the framers of the Constitution. Far from it. There were almost immediately fierce disputes over the proper spheres of the federal and the state governments, disputes which continue today, but with less animation. There were, and still continue to be, strenuous protests against what seems to those protesting a too great governmental concern for property rights, and a neglect of personal freedom. But a system dominated by free private enterprise, then as now, enlisted the support of a sufficient group to prevent its violent overturn.

At the time the Constitution was adopted, there was little difficulty in justifying the kind of economic system which it buttressed. Opportunities for those who were diligent and free to make a good living under such an arrangement were abundant. Take the case of one of the relatively small number of craftsmen working in the growing cities along the eastern seaboard. He might be his own boss, working along lines somewhat similar to those followed by the small-town plumber today, or he might be working for an employer as one of a small group. In any event he would be able to check fairly closely on the results of his labors and gauge his wage demands accordingly. He was not one of a great group of highly specialized workers, each contributing a small part, and a part very difficult to measure, of the labor necessary

to turn out a finished product. Also, in making his demands for payment he had several very powerful factors in his favor. One was that labor was almost always scarce. There was always fertile and cheap land available for those who chose to quit the towns and set up in business for themselves, and it was not so difficult then as now for most people to shift from one occupation to another. Under such conditions that group most likely to complain effectively about the workings of a system of free private enterprise—the politically free but propertyless laborers—found little to make the basis of a formidable complaint.

There was, to be sure, a body of indentured servants bound in servitude for varying terms of years, and an increasing company of negro slaves for whom there was no opportunity to indulge in free private enterprise. If called upon they could unquestionably have brought a grave indictment against the prevailing system. They were not called upon because their status was not such as to make their views particularly important. The few indentured servants who remained at the close of the eighteenth century had before them the prospect of being released from their servitude in the course of a few years and joining the body of free men for whom the opportunities of getting ahead were generally good.

For the small independent farmers who made up the bulk of the population a system of free private enterprise, based upon the firm entrenchment of private property rights, was essentially agreeable. Given an opportunity to acquire land, they could wrest a living from the soil with little outside assistance. And when increasing population enhanced land values, as it always does, they could either sell their lands at increased prices and push on to more remote and cheaper lands, or they could "stay put" and rest secure in the realization that the development of the country was increasing the importance of their property holdings. The opportunities which were afforded to those who chose to make their living by agriculture are indicated by the following letters written during the period:

OPPORTUNITY IN A NEW LAND ¹⁰

by François Jean Chastellux

I SAW, for the first time, what I have since observed a hundred times; for in fact, whatever mountains I have climbed, whatever forest I have traversed, whatever bye-paths I have followed, I have never travelled three miles without meeting with a new settlement, either beginning to

¹⁰From a description of Western Connecticut, 1780, in *Travels in North America in the Years 1780, 1781, and 1782*, New York, 1827.

take form or already in cultivation. The following is the manner of proceeding in these improvements or new settlements. Any man who is able to procure a capital of five or six hundred livres of our money, or about twenty-five pounds sterling, and who has a strength and inclination to work, may go into the woods and purchase a portion of one hundred and fifty to two hundred acres of land, which seldom costs him more than a dollar or four shillings and six pence an acre, a small part of which only he pays in ready money. There he conducts a cow, some pigs, or a full sow, and two indifferent horses which do not cost him more than four guineas each. To these precautions he adds that of having a provision of flour and cider. Provided with this first capital the ground is cleared; the air and the sun begin to operate upon that earth which is wholly formed of rotten vegetables, and teems with the latent principles of production. The grass grows rapidly; there is pasturage for the cattle the very first year, after which they are left to increase, or fresh ones are bought; and they are employed in tilling a piece of ground which yields the enormous increase of twenty or thirty fold. The next year the same course is repeated; when, at the end of two years, the planter has wherewithal to subsist, and even to send some articles to market; at the end of four or five years he completes the payment of his land, and finds himself a comfortable planter.

ACQUIRING A TASTE FOR PROPERTY ¹¹

by Timothy Dwight

THEY [the pioneer farmers] sell the soil of their first farm at an enhanced price, and they gain for their improvements on them, what, to themselves at least, is a considerable sum. The possession of the money removes, perhaps for the first time, the despair of acquiring property, and awakens the hope and the wish to acquire more. The secure possession of property demands every moment the hedge of law; and reconciles a man, originally lawless, to the restraints of government.

THE FRONTIER FARMER BECOMES A "SUBSTANTIAL CITIZEN" ¹²

by St. John de Crevecoeur

THE country fills with new inhabitants. His [the frontier farmer's] granary is resorted to from all parts by other beginners who did not come so well prepared. How will he sell his grain to these people who are strangers to him? Shall he deduct the expense of carrying it to a distant mill? This would appear just, but where is the necessity of this justice? His neighbors absolutely want his supply; they can't go to other

¹¹ From *Travels in New England and New York; 1796-1815*, New Haven, 1821, page 458.

¹² From *Sketches of 18th Century America*, op. cit., pages 75-76.

places. He, therefore, concludes upon having the full price. He remembers his former difficulties; no one assisted him then. Why should he assist others? They are all able to work for themselves. He has a large family, and it would be giving its lawful substance away; he cannot do it. How should he be charitable? He has scarcely seen a poor man in his life. How should he be merciful, except from native instinct? He has never heard that it was a necessary qualification, and he has never seen objects that required the benefits of his sympathy. He has had to struggle alone through numbers of difficult situations and inconveniences; he, therefore, deals hardly with his new neighbours. If they are not punctual in their payment, he prosecutes them at law, for by this time its benefits have reached him. 'Tis laid out into a new county, and divided into townships. Perhaps he takes a mortgage on his neighbour's land. But it may happen that it is already encumbered by debts. He knows instinctively the coercive power of the laws; he impeaches the cattle; he has proper writings drawn; he gets bonds in judgment. He secures himself; and all this is done from native knowledge; he has neither counsellor nor adviser. Who can be wiser than himself in this half-cultivated country? The sagacity peculiar to the American never forsakes him; it may slumber sometimes, but upon the appearance of danger it arises again as vigorous as ever.

But behold him happily passed through the course of many laborious years; his health and, therefore, his consequence increase with the progress of the settlement. If he is litigious, overbearing, purseproud, which will very probably be the bent of his mind, he has a large field. Among so many beginners there need be many needy, inconsiderate, drunken, and lazy. He may bring the necessary severity of the law to flourish even in these wilds. Well may we be subjects to its lash, or else we would be too happy, for this is almost all the tribute we pay.

Now advanced in life and grown rich, he builds a good substantial stone or frame house, and the humble log one, under which he has so much prospered, becomes the kitchen. Several roads intersect and meet near this spot, which he has contrived on purpose. He becomes an innholder and a country-merchant. This introduces him into all the little mysteries of self-interest clothed under the general name of profits and emoluments.

As is almost always the case with those who have a relatively large share of property, the merchants and traders along the eastern seaboard were happy to be substantially relieved of the threats of interference with their business activities and property holdings through the political action of organized majorities. The substantial business men of 1790, like those of the present, approved of the idea of less government in business. Under the new system of government they felt amply able to take care of themselves. Such was also the case with the Southern plantation owners, although the youngest of them were

to live to see the day when the safeguards which had been thrown about their property in human slaves would result in a devastating war.

A system of free private enterprise, within the limits which have been outlined, was essentially agreeable to all parties engaged in producing goods and services whose opinions were of importance in securing the stability of such a system. What of those who consumed the goods and services, generally the same people, of course, but in a different rôle? How were they assured by such a system that they would get their "money's worth" in the absence of some impartial agency to advise them about the quality and the fairness of the price demanded?

In the case of the farm families which made up the majority of the population, most of the things consumed were produced at home. The purchases were generally of things with which the buyer was rather intimate, and whose quality he could judge with a fair degree of accuracy. There were very few elaborate mechanical contraptions which the buyer was required to purchase on faith. Carburetors and mysterious electrical devices were unknown. Homespun, tallow, plows, and leather breeches were goods a consumer could judge fairly accurately by inspection. Because of the relative simplicity of material and design of the goods offered for sale, consumers generally had a fair chance to judge the quality of what they were buying. Courts, recognizing this situation, affirmed the doctrine of "*caveat emptor*" ("let the buyer beware"), and there was no violent protest. If consumers did not always get their "money's worth" from notoriously sharp Yankee merchants, they at least had a "run for their money" because of their ability to gauge with some accuracy the merits of their purchases. Once deceived, they could shift their patronage to another seller if one happened to be available, and because of the relative simplicity of most of the goods offered for sale it was often not so difficult as at present for new sellers to enter business. The protection afforded to consumers by the competition of sellers, however, was not particularly effective in many cases because of the absence of rapid communication and transportation. Frontier farmers, for example, had little opportunity to "go shopping" for the supplies they required. Their protection from exploitation rested rather in their ability to judge the merits of the limited variety of goods which they had occasion to purchase, and their ability to do without or manufacture at home many of those whose prices seemed exorbitant. The present-day farmer, anxious to have a new suit of clothes, a washing machine, an automobile, or a radio, but dissatisfied with the prices of those offered for sale, is usually unable to set about making such things for himself. The eighteenth century American farmer was generally much differently situated. His wife could usually be counted upon

to turn out a satisfactory suit of clothes. She was also the washing machine. The delights and torments of automobiles and radio remained to be discovered.

Principally on account of the abundant opportunities for diligent individuals to "get ahead" in a new and fabulously fertile land and the relative simplicity of the economic life, a system of free private enterprise was essentially satisfactory to all the influential parties concerned at the close of the eighteenth century.

Then came the machine to revolutionize economic life in the United States, and to impose all manner of strains upon a system designed to cope with a set of problems which had arisen in a simple, predominantly agricultural frontier community. The coming of the machine and some of its major effects upon economic life and organization in the United States will be discussed in the five chapters which follow.

QUESTIONS

1. Among the truths held by the Declaration of Independence to be "self-evident" is that "all men are created equal." What do you think that means? Does it refer to economic equality? If not, to what kind of equality? Do you think it was more or less true in regard to economic equality when advanced than it is today? Why?
2. The American colonies had been taxed without representation for many years before 1763, and had made no grave complaint. How do you account for the violent protest against such taxation following that time?
3. Was independence from England equally desirable from the point of view of all groups in this country in 1776? Discuss.
4. Gouverneur Morris, delegate from New York to the Constitutional Convention, asserted that "life and liberty were said to be of more value than property. An accurate view of the matter would nevertheless prove that property was the main object of society," and John Rutledge of South Carolina agreed that "property was certainly the principal object of society." Was this idea advanced by the leaders in the revolutionary movement? If so, why? If not, why not?
5. Explain how the conflict between opposing interests at the time the question of ratification of the Constitution was paramount led to an extensive restriction upon governmental activity.
6. Mr. Hadley contends that private property rights in the United States are more guarded against governmental interference than in any European country. Do you regard this as a peculiarly fortunate arrangement? Explain from your own point of view and then explain how that point of view might be modified if you

were (1) president of a large chain of textile mills, (2) a worker in the mills.

7. Write an essay on the economic foundations of club life for women in the United States, contrasting the situation in the latter part of the eighteenth century with that which prevails today.
8. Why is it impossible to indicate just exactly what a system of "free private enterprise" is without writing several volumes? For how long would the volumes be authentic?

C H A P T E R I I I

DEVELOPMENT OF THE MACHINE PROCESS

THIS is the first of a series of four chapters that will consider changes which have occurred since colonial times in methods of making and marketing goods and in ways of financing these operations. A fifth will ask how these new developments have affected the working of the scheme of free enterprise which, in its essentials, was devised before the coming of the machine process. Discussion in this chapter will center about:

1. The beginnings of the machine process in England.
2. The introduction of machine methods into the United States.
3. The rapid acceptance of machine methods in the United States.
4. The close interdependence between the use of machines and
 - (a) Specialization
 - (b) Large-scale production
 - (c) Use of mechanical power
 - (d) Standardization
 - (e) Application of scientific methods to production.

TO a person anxious to make rapid headway toward an understanding of twentieth century economic problems, the last chapter may have presented something of a puzzle. Why, it may have been asked, should we concern ourselves with events which transpired a century and a half ago? Why not devote our limited resources to the living present?

The answer is that, although we frequently do not realize it, our lives are controlled in quite substantial measure by what happened during the turbulent years toward the close of the eighteenth century. Many of the foundations of our economic system were then set firmly in place. Today, when it is proposed to tamper with them, George Washington, Alexander Hamilton, John Adams, Thomas Jefferson and many other of the "fathers" enter the argument through quotations from their writings and speeches. In current controversy over the solution of economic problems the leaders in public life during the early days of the republic are always regarded as strong allies.

The problems with which they were concerned were quite different from those of the present day. Theirs was a sparsely settled frontier community, blessed with an abundance of natural resources, such as forests and fertile fields. An overwhelming majority of the people were engaged in agriculture, although there was a substantial body of mechanics and an influential group devoted to the growing commer-

cial activity of the seacoast towns. By way of equipment with which to wrest a living from this new and prodigiously fertile land, the outstanding needs seemed to be those of men and tools. By way of government, it was possible to secure a fair measure of agreement on the proposition that the principal need was to protect the individual in the fruits of his labor, leaving him otherwise largely to his own devices. To that end many of the provisions of the federal Constitution were adopted.

At about the time the federal Constitution was being perfected to buttress the legal foundations of a system of free private enterprise, England was undergoing an industrial upheaval which was to bring to the United States tools to harvest the natural resources of the new nation. The so-called industrial revolution, marking the beginnings of the machine era, was under way and it was only a question of time until it would sweep the United States.

As the system of government capped by the federal Constitution had exalted the individual, the machine era, to be ushered in shortly thereafter, was destined to play havoc with the importance of the individual. Its demands were to be those of specialization, mass production, and standardization. All of these tend to increase the importance of the group rather than that of the individual.

When a worker enters the modern factory he abandons his individuality and becomes a part of a great machine process. "One man feeds the sheet of steel into number one machine," to quote from a recent Ford advertisement, "another man takes the cut piece from the other side of the machine and places it in number two machine which roughly forms the crankcase; the operator on the opposite side takes the part and hangs it on a continuous conveyor which carries it through a heat-treat where it is annealed and returns it for the remaining operations which are handled in like manner. At the lower end of the department the completed parts are hung on conveyors which carry them to the motor assembly. Four thousand crank-cases are manufactured daily with a force of but twenty-two men." To carry on such a process as this, masses of people are needed to man the machines, to contribute to the large sums required to obtain them, and to buy the standardized products turned out.

In the eighteenth century, the problem of making a living was one to be solved largely by individual enterprise. In the present machine era economic activity is carried on predominantly by group enterprise, and the individual is generally a cog in a great economic system over which he has, at best, only partial control. The legal system is continually being modified to take account of changing economic conditions introduced by the coming of the machine era. Many of its

essentials, however, are still firmly anchored to the foundations set tightly in place by the "fathers."

This fact forms the basis of one of the central problems of modern economic life. This is the problem of reconciling the claims of the individual, as guaranteed by the basic laws of the land, with the claims of the group, which have become increasingly insistent with the onward rush of the machine. In this chapter and the following three the discussion will be largely limited to the striking changes in our economic system which have accompanied the rapid development of the machine process in this country. Then we will pause to consider something of the pressure these conditions have imposed on the system of free private enterprise, which is depended upon primarily to give direction to the economic life of the nation,—a system whose essentials were adopted to meet problems quite different from those of the machine civilization which we have today.

In getting our start toward this machine civilization, we borrowed heavily from England. How this was made possible is indicated in the following statement.

THE MACHINE AGE BEGINS IN ENGLAND¹

by William Cunningham

IN the latter part of the eighteenth century there was a burst of inventive genius in Great Britain. Many improvements were rapidly introduced, and the useful arts, as practised from time immemorial, were revolutionized in a few years. This was no mere accident, but was at least partly due to the fact that the conditions of economic life had become more favorable to such change than they had ever been before. The age of geographical discovery had paved the way for the age of invention; England had succeeded in surpassing each of the rivals who during a century and a half had striven with her for the commercial supremacy of the world; her predominance afforded the English inventors of the eighteenth century unexampled opportunities for turning their talents to account.

Holland was no longer the carrier of the world; her manufactures had declined in importance. In France over-centralization destroyed the initiative of the people and injured all branches of industry and agriculture. English shipping had increased, and distant markets for national wares had been opened. The East Indies were willing to accept unlimited supplies of cotton cloth; and the continent of Europe and the colonies of America were largely dependent on Great Britain for woollen goods; manufacturing could be conducted on a larger and larger scale without

¹ Adapted from *An Essay on Western Civilization in Its Economic Aspects*, II, Cambridge University Press, 1900, pages 225-228.

immediate risk of glutting the widespread demand by overproduction. So long as commerce had been organized as an intercivic affair, or on the old regulated lines of exclusive privilege in limited markets, there could not have been any such stimulus to the invention and introduction of machinery as the world-wide markets naturally afforded.

But more than this: the mines of the New World and the successful commerce with the East had given England the material means for the formation of large amounts of capital, which were now available for employment. There had been much admirable ingenuity among seventeenth century engineers and mechanics, but they were hampered by want of capital; their projects could not be carried out. In the eighteenth century London had become the monetary center of the world, and it was no longer impossible to venture on the long and costly experiments that were often needed to render some mechanical improvement a financial success. We are not detracting from the genius of Watt or Arkwright if we say that they seized and made the most of opportunities, such as no other men had ever had before. Had they lived under the conditions which were in vogue in preceding centuries, both as to demand for goods and the supply of capital, these great inventors could only have enjoyed the meagre distinction which future generations accord to men who were in advance of their times.

The great geographical discoveries were the result of long-continued and conscious effort, directed to a clearly understood aim; great expeditions had to be organized to sail on unknown seas and establish friendly relations with distant potentates. Explorers were forced to wait on courtly patronage and royal initiative; but mechanical invention has run a different course. The coincidence of the two phenomena, a world-wide demand and a large supply of capital, enabled humble and unknown men to push on step by step; political prestige and elaborate organization were not so essential as in schemes for colonization; mechanical skill and personal ingenuity had at last obtained their chance.

* * *

Experiments with newly invented machines proved successful in England partly because of the extensive markets already developed and the accumulation of capital as a result of trade. In these respects England was far better prepared to use machinery in making textiles than was the United States. On the other hand, the youthful nation on this side of the water was gifted with bountiful natural resources which would lend themselves to the successful use of machine methods. Before long, adventurers were copying the designs of English machines and setting up factories to manufacture in competition with the English. The extent to which the early industrial development of this country was dependent on European experience is indicated by the following statement.

AMERICA BORROWS THE MACHINE²

by Victor S. Clark

OUR manufacturing development owes more to the technical progress of Europe, which the maturer conditions of production abroad accelerated, than to any other foreign influence. The results of this progress were borrowed readily by America, though they might not have originated in so new a country. Power spinning and weaving were the inventions of a land where textile industries were more highly specialized than American conditions at the time permitted. The use of coal and coke for smelting iron, and of puddling-furnaces and rolling mills, were processes responding to the requirements of a country where woodlands already were scanty and where large markets and easy transportation called for wholesale production. The use of chemicals in dyeing, and other applications of science to industry, had their natural beginning in old communities, possessing ancient institutions of learning, ample capital for experiments, and a market for luxuries.

On the other hand, America was prepared to welcome most foreign mechanical improvements. The high price of labor, our rapidly growing market, our high standard of living, and the natural mechanical aptitude and intelligence of our native working people, all contributed to create a demand for labor-saving devices. After the first suggestion of an invention was received, provided it responded to the needs of the country at the time, it was usually improved, and in our hands not infrequently became almost a new development. After the introduction of Arkwright machinery and the Watt steam-engine, which might not have originated independently in America for many decades, the young Republic was well speeded towards industrial self-sufficiency. If after those two acquisitions it had been isolated for half a century from transatlantic influences, its manufactures by no means would have waited upon a resumption of intercourse for a continuance of their technical progress. Yet, as a matter of history, British industrial technique was during this period constantly so far ahead of that of the United States that our manufacturers always were in the position of learners from the older country.

If at first somewhat of an alien in the United States, the machine did not remain so. It found here an environment in which to thrive prodigiously; and today machine methods hold a dominant, some say supreme, place in the economic life of the nation. A brief summary of this development is presented in the following article.

² Adapted from *History of Manufacturers in the United States, 1607-1860*, Carnegie Institution of Washington, 1916.

THE EMERGENCE OF THE FACTORY SYSTEM³

by W. L. Thorp

IN 1791 Alexander Hamilton, as Secretary of the Treasury, in obedience to an order from the House of Representatives, submitted a "Report on Manufactures." Although this document was intended primarily as a plea for a governmental policy encouraging manufacture in the United States, it gives some indication of the industrial development of the country at that time. The Revolutionary War had created, of necessity, many infant industries. Although a considerable number were unable to survive the foreign importation of goods which succeeded the artificial period of protection afforded by the war, Hamilton found seventeen industries which had "grown up and flourished with a rapidity which surprises, affording an encouraging assurance of success in future attempts." In addition to these "manufactures carried on as regular trades," which included those industrial activities which one might expect to be first developed in a new country—the manufacture of agricultural implements and firearms, the work done by sawmills and gristmills, the dressing of skins and hides, etc.,—Hamilton described "a vast scene of household manufacturing which contributes more largely to the supply of the community than could be imagined without having made it an object of particular inquiry. It is computed in a number of districts that two-thirds, three-fourths, and even four-fifths of all the clothing of the inhabitants are made by themselves."

A similar report was called for the House of Representatives in 1809, and in the following year Albert Gallatin, then Secretary of the Treasury, submitted a statement which has been called "an admirable summary of the condition of American manufactures at that date." The significant feature of this report is the list of reasons which Gallatin assigns for the admittedly tardy development of manufactures in the United States. They are five: (a) The abundance of land; (b) the high price of labor; (c) the scarcity of capital; (d) the preference for agriculture and commerce during the Continental War; and (e) the force of tradition and habits.

The factory system had been introduced into this country in the latter part of the eighteenth century. In 1789 Samuel Slater, called by President Jackson the "father of American manufactures," set up in Pawtucket, R. I., the first complete cotton machinery to operate in this country, constructing the machinery entirely from memory of that in England.

Although the factory system made rapid strides in England, it developed in the United States at a much slower rate. The system really gained its first foothold during the period of embargo and the War of

³ Adapted from "The Integration of Industrial Operation," Census Monograph III, Government Printing Office, Washington, D. C., 1924, pages 21-23, 34.

1812, which was followed by the first protective tariff, that of 1816. The manufacture of cotton and wool passed rapidly from the household to the mill; but the methods of domestic and neighborhood industry, even in these lines of manufacture, continued to predominate down to and including the decade between 1820 and 1830. The rapidity with which the factory system expanded after that is evidenced by the growth of the cotton industry, the number of spindles in operation in Massachusetts during this period being as follows:

1830	340,000
1840	624,000
1850	1,288,000
1860	1,688,500

It was not until about 1840 that the factory method of manufacture was widely introduced in miscellaneous industries and began gradually to force from the market the handmade products with which every community had hitherto supplied itself.

There is perhaps no better method of summarizing the development since that time than to show the shifting proportions of the three main branches of economic activity—agriculture, manufacturing, and mining. In 1850 the product of the activity of manufacturing establishments—"value added by manufacture," in census terminology—represented but one quarter of the total product for the three groups. Manufacturing increased at a much faster rate than agriculture, and at the close of the century the value added by manufacture had actually surpassed the total value of agricultural products. The greatest height yet reached was reported in 1919, when manufacturing activity yielded more than one-half of the total return for these three major activities. The United States entered the twentieth century a manufacturing nation. The events of the twentieth century have served only to entrench her in that position, as is apparent in the table below.

Percentage Distribution of Total of Value Added by Manufacture, Value of Agricultural Products, and Value of Mineral Products: 1850, 1870, 1899, 1919.

Census Year	Value Added by Manufacture	Value of Agri- cultural Products	Value of Mineral Products
1850.....	26.5	71.5	1.9
1870.....	40.1	56.3	3.5
1899.....	46.7	45.6	7.7
1919.....	51.0	42.6	6.4

The story of the rise of the machine to a dominant position in the economic life of the United States is not confined to what is commonly described as manufacturing. The machine has invaded and frequently revolutionized methods of farming and extracting minerals. Some slight indication of the rôle of the machine in American agriculture is given by the following statement.

THE MACHINE AND FARM PRODUCTION ⁴

THERE is a significant relationship between the development and progress of American agriculture and the use of mechanical farm equipment. In the beginning of American agriculture, the Colonists practiced the crudest methods for crop production. An investigator of the methods used in the early days of the Massachusetts and Virginia colonies, points out that the agriculture of the period resembled in a marked way that of the Romans in the time of Christ. In fact, the records of the Colonists trying to establish themselves on the Atlantic Coast, tell how they found it necessary to resort to the methods of cultivating the soil and the crop systems practiced by the Indians, and in several instances they were unable to produce enough for their own requirements and were compelled to reply on the crops and storage products of the Indians.

For nearly two centuries there was little advance in methods of production, and the equipment of the American farm during the eighteenth century was not particularly different from the crude tools employed three thousand years before by the ancient Egyptians and Israelites. The seed bed was prepared with a crude plow like that described by Virgil and used by the Romans. The soil was smoothed and pulverized with a brush harrow, the seeding was by hand and the harvesting by the sickle or the longer handle cradle later developed from this implement.

Early in the nineteenth century there was an awakening and seeking for better implements and machines to assist the farmer. Charles Newbold in 1797 secured a patent in the United States on a plow which was made entirely of iron. Before 1800 the plow of metal came into use in Holland and England. It is recorded that in 1833 John Lane, and in 1837 John Deere, both of Illinois, made plows of steel. In the period from 1833 to 1835, Obed Hussey and Cyrus McCormick invented, patented, and made successful reapers. These early attempts to produce better farm equipment began to bear fruit during the middle of the nineteenth century, and the year 1850 is looked upon as a year separating the period of hand production from the period of machine production in the United States.

In the ten-year period from 1850 to 1860 the number of laborers employed in the manufacture of agricultural implements and machines doubled, and the value of the products produced was nearly trebled.

⁴ Adapted from *Research in Mechanical Farm Equipment*, U. S. Department of Agriculture, December, 1926.

The census does not report statistics for an earlier date than the year 1850, but it is generally known that the industry was of small consequence and was perhaps of too little importance to be taken into account by the census. The growth of the farm equipment industry has continued steadily for the past seventy-five years with a sudden increase of development during the World War and a subsidence during the period of agricultural depression of 1920 to 1924.

The extension of the use of the combined harvester-thresher now taking place in the semi-arid sections of the wheat belt is an example of the change of methods brought about by machinery. This machine, by providing for a large reduction of labor and dispensing with the use of twine, makes its use a great economy over other methods. This economy is so great as to furnish the urge for the development of methods of drying threshed grain which will permit the use of the combined harvester-thresher in the humid sections. One change wrought by this machine is the practical elimination of the need for itinerant labor in the sections where used. There is an urgent need at the present time for machines to reduce the burden of hand labor in the production of certain crops, notably cotton and sugar beets.

. . .

The expansion of the machine process has not taken place with equal rapidity in all sections of the country. For a long period the principal use of the machine was in the North. The South was delayed for almost a century by the plantation system built about slavery, and by the ravages of the Civil War and "reconstruction." Slavery and the Civil War, however, were promoted by the use of one particular machine that may be said to have kept all others out of the South. This one machine was the cotton gin, invented by Eli Whitney in 1793. It served to revive and make doubly profitable the plantation system of agriculture and slave labor. Considering these circumstances and others such as the different character of the resources of the two sections, we can see readily how it happened that the new industrialism did not gain a foothold in the South as soon as it did in the North. Similarly, one could account partially for the earlier and more complete industrialization of the East as contrasted with the West by reviewing the history of the settlement of the country as it proceeded inland from the Atlantic coast, and by taking note of a dozen other factors perhaps equally important.

Throughout the course of their development, machine methods have met a certain amount of opposition. Since the dawn of written history there have been people who have objected to "new-fangled things" simply because they were "new-fangled." Moreover, the greater the amount of labor a new device saves the more workers it throws out of jobs. Workers faced with displacement by machines naturally do not

extend an enthusiastic welcome to their successors. The large number of highly skilled Morse code telegraphers who are at present being displaced by mechanical telegraph machines, for example, can hardly be expected to join in the chorus of praise of the mechanical era.⁵ Manufacturers who hold patents sometimes find it profitable to delay the introduction of new methods by purchasing patents on these new processes and suppressing them. Some of the types of opposition to the development of the machine process are illustrated in the following statements.

A WELCOME FOR THE RAILROAD ⁶

IN 1828 the school board of Lancaster, Ohio, wrote a letter containing the following:

"Sir: You are welcome to use the school house to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the Word of God about them. If God had designed that his Intelligent creatures should travel at the frightful speed of fifteen miles an hour by steam He would clearly have foretold it in his holy prophets. It is a device of Satan to lead immortal souls down to Hell."

PENNSYLVANIA PROTESTS ⁷

THE opposition to railroad building in Pennsylvania was bitter and prolonged. The people seemed entirely content with the facilities afforded by pack trains, winding slowly and laboriously, single file, over the mountains between Philadelphia and Pittsburgh. When turnpikes were first proposed, a vigorous protest was raised on the ground that packers and horse breeders would be ruined, but at last this opposition was overcome and in 1786 a fortnightly stagecoach made the trips between Philadelphia and Pittsburgh. This was increased to a daily service by 1804. The interests which had brought this about were also strong enough to make powerful opposition when a few "radicals" proposed the building of canals as being superior to turnpikes, but the clamor of opposition reached its climax when the "extremists" attempted to maintain that railroads would be superior even to canals. When, however, the opening of the Erie Canal had suddenly diverted Philadelphia's trade with the

⁵ "In 1913 the Western Union had on its payrolls some 35,000 Morse operators. Today there are perhaps 10,000 Morse men in the employ of the Western Union, and very many of them are working only part time. The Morse men are given opportunity and time to learn the new system [dispatch and receipt by typewriters directly connected with telegraph wires] but many of them simply cannot adapt themselves to the new way." From an article by George Saint-Amour in *Editor and Publisher and the Fourth Estate*, May 10, 1928.

⁶ Adapted from an editorial in the *San Francisco News*, Nov. 7, 1927.

⁷ Adapted from the *Report of the Joint Commission of Agricultural Inquiry*, Part III, October 15, 1921, Government Printing Office, Washington, D. C.

West to New York, the State undertook what private enterprise would not, by creating a board of canal commissioners to construct improved avenues of communication with the western parts of the State. It was agreed that canals were best but that owing to the mountainous character of the State, railroads might have to be built to fill in the gaps between and connect up the proposed canals; but the board was careful to make it plain that they favored railroads only as a last resort and that in their opinion the advocates of railroads overrated their commercial value.

OPPOSING THE "NEW-FANGLED" THING ⁸

THEY tried an electric railway car on Fourth Avenue yesterday. It created an amount of surprise and consternation from 32nd Street to 117th Street that was something like that caused by the first steamboat on the Hudson. Small boys yelled "dynamite" and "rats" and made similar appreciative remarks until they were hoarse. Newly-appointed policemen debated arresting it, but went no further. The car horses which were met on the other track kicked without exception, as was natural.

Jay Gould, who had been interested in the electric car experiment from a financial point of view, was very near the control box on the trolley car when the safety fuse blew out, and immediately lost his interest.

* * *

Even the most fervent opposition to machine methods has done little more than to check their expansion temporarily. The description of the way the machine has entered into various industries and various sections of the country necessarily runs largely in terms of past events. Consequently it is easy to slip into the habit of thinking of the industrial revolution as a completed episode. This is a dangerous mistake, for some of the most perplexing problems arise out of the fact that we are in the midst of a continuing industrial revolution. Copper-refining processes are rapidly being improved; cutting machines are being introduced more extensively in the bituminous coal fields; rayon is becoming an increasingly important textile competing with silk and more particularly with cotton. The daily newspapers constantly report revolutionary industrial developments of the type indicated in the following dispatch.

A NEW GERMAN INDUSTRY ⁹

HOECHST-AM-MAIN, GERMANY, October 29 (A. P.)—Plans have been completed for construction of the first large refinery for the Aniline Dye

⁸ From the *New York Sun*, August 14, 1887.

⁹ From the *New York World*, October 30, 1926.

Trust which will use the Bergius process to turn poor quality coal and coal screenings into gasoline, kerosene and lubricating oils worth from 20 to 25 times the market value of the coal.

Officials of the Dye Trust are understood to be confident it will be technically and financially possible in the next few years to make Germany independent of American and British oil companies which now supply 75 per cent of all the gasoline, 50 per cent of the lubricating oils and 100 per cent of the kerosene used in Germany.

The huge refinery, says F. Zur Nedden, Berlin engineer, will be able to turn one ton of poor quality Ruhr coal into 300 pounds of gasoline, 440 pounds of lubricating oil, 132 pounds of grease and 176 pounds of kerosene. The production cost of these products will approximate \$26, while the value at the refinery will average \$45 at present prices.

The coal actually consumed in the process will cost less than \$1.50 at the mines which are close at hand. The production cost, which includes labor, materials, interest and depreciation, is so low, Zur Nedden believes, that foreign concerns cannot compete with the Dye Trust.

The process, invented by Dr. Bergius fourteen years ago and used only on a small scale, consists of placing a mixture of powdered coal or screenings and tar into a huge drum into which is passed impure hydrogen gas. Upon application of tremendous pressure for a certain length of time, a viscous fluid resembling crude petroleum is obtained. The fluid is refined in the same manner as petroleum.

This brief review has given some slight indication of the development of the machine process in different periods, in diverse lines of economic activity, in various sections of the country. Mention has also been made of the fact that such industrial change has continued in spite of opposition from various sources.

In the balance of this chapter we shall study a few of the conditions which have accompanied the development of the machine process. These include extensive specialization, large-scale production, the use of mechanical power, standardization, and the promotion of scientific methods of production. They will be discussed in order as a matter of convenience, not of logic. Once present, any feature of the machine process will tend to promote each of the others so that it is almost impossible to tell which is cause and which effect.

Specialization, the first of the conditions accompanying the development of the machine process we shall discuss, is, of course, not exclusively related to the coming of the machine. It has existed throughout history. Biological differences, for example, have made it necessary for women to bear children, and long before the industrial era men specialized in hunting game and enemies.

While specialization is not a new thing, its importance has increased tremendously since the coming of the machine, as we can see readily if we look back to the Middle Ages. Contrasting the occupational specialization of that day with our own, we find that then there were butchers and bakers and wheelwrights, but no specialists who simply cut the throats of sheep traveling down a runway in a Chicago packing plant. Nor was there anyone who spent all day lubricating machinery made to turn out paper to wrap the products of a bread-baking company. In our day no one man makes *shoes*; at least 180 separate operations are involved in making each pair. In the bottoming department a man may be a buffer, an edge setter, an edge trimmer, a goodyear sticker, a goodyear welter, a heel breaster, a heel burnisher, a heel set nailer, a heel slugger, and so on through the alphabet. The potter, that mysterious solitary figure of the Middle Ages, is now caster, presser, decorator, dipper, disher, gold liner, handler, jigger-placer, molder, packer, sagger, turner, or setter-out.

In 1776 Adam Smith was so impressed by the increase in occupational specialization that he devoted the first chapter of *The Wealth of Nations* to a discussion of the "Division of Labour." In it he pointed out the gains made when a single job was split into several parts and each part handled by a man or child who did nothing else. Such organization of the work made each one an expert at his own task and saved the time of shifting from job to job. A further advantage, from the point of view of one hiring labor, was that such splitting up of jobs made it easier to devise machines to save labor cost.

The growth of machine industry since Smith's day, when it was in its merest infancy, has been accompanied by much further occupational specialization. Manufacturers find that it pays to employ certain workers to tend machines, certain others to repair them and still others to invent new ones and plan operations. Salesmen and advertising experts are hired to sell the abundance of products turned out by the machines. In large-scale operations the figures are too complicated to remember, so accounting specialists are paid to keep financial records.

No detailed demonstration is required to prove that business men find it pays to split jobs into a hundred parts and then to hire different men to do each little task. Each man becomes very proficient at his own work and the total product turned out by the hundred men is much greater than it would be if each one carried the operation through from start to finish, working at a wide variety of jobs. But how does it happen that men can be found to fit themselves into what seems, to a casual observer, to be the extremely complicated machine

process? Most people, upon examining a completed automobile or radio set, are impressed by the fact that they would be at a complete loss to know how to set about making such a thing. They marvel at the skill involved and not infrequently assume that these must be the products of a great body of master craftsmen.

The nature of the modern machine process does not lend complete support to such a notion. Much skill enters into the manufacture of automobiles, for example, but the requirements of skill do not extend evenly throughout the factory system. For many workers it is simply a case of tending—contributing another part to—machines devised by engineers to accomplish certain industrial results with untiring energy and precision. The engineering task involved in designing the machines is generally one requiring both skill and imagination, but tending these machines is a job which often demands very little of either.

The following group of statements discuss labor specialization in our modern factory system. The first, based upon observations in the Ford automobile factory, argues that in many cases modern industrial workers become little more than minor parts of the machinery. This is emphatically denied in the second statement, which advances the proposition that modern industrial jobs require great skill and intelligence. Then there is a concluding statement suggesting that the effects of specialization upon workers depend upon the particular job in question.

MEN AND MACHINES ¹⁰

by Robert Littell

New machinery can be worked out, and old cast aside, smaller businesses can be bought, and natural resources brought within the Ford circle. Perhaps no one ever subjected machinery more completely than Henry Ford. With men, we like to think, it is not as with machinery. Will meets will. But Henry Ford has almost no trouble with men. The answer is simple: only a very small part of a man works for Henry Ford. The range of his activity is enormously limited by machinery. A man can't do much harm in the Ford plant, because Henry Ford prides himself that his system of production is fool proof, which means that a fool can do the job about as well as a better man, and he can't do any harm by quitting, because there are five men waiting to grab his job. A job in his factory, says Mr. Ford, can be learned within a few days, or even in a few hours. Forty-three per cent of all the jobs re-

¹⁰ Adapted from an article, "Henry Ford: Men and Machines," in the *New Republic*, October 24, 1924.

quire not over one day of training; thirty-six per cent from one day to one week, only one per cent require from one to six years. Obviously, the vast majority of the work is unskilled. More than that, it is repetitive to the highest degree. When Mr. Ford points with pride to the fact that in 1903 four times as many men were needed to produce a car as are required today, it means above all that each man has been given a simpler and simpler set of motions, and that each set is repeated more and more times a day as the months go by.

Nearly every one has by now either seen or pictured to himself the fascinating and horrible spectacle which is the making of the Ford car. Every one knows about the travelling conveyors, which carry the cylinder block just a little too fast past groups of men struggling to insert into it their assigned part. The speed of these conveyors is not constant. If all the departments of the plant are working smoothly, and an increase in production is desired, their speed is slightly increased at the beginning of the day, unknown to the men, who at the end of the day are aware only of being a little more tired than usual.

As one stands watching the process, what is going on does not seem to be labor, but something new, quite different, to which should be given another name. The men are not running the machines, but the machines are running the men, setting for them an inexorable pace with which they must hurry and struggle to keep up. The machines do so much, and each man so little. One can watch for a few minutes some sour-faced, frantically working old fellow who in a few minutes will have repeated forty or fifty times before your eyes the process he is to repeat all day long, every day of his life. Here work and creation, work and workmanship, are seen to have nothing in common. The man who puts in the screw does not screw it down, the man who screws it down does not give it the final tightening. The harassed, driven look which people often mistakenly imagine they see in the faces of machine workers is, this time, obviously present. Only a certain kind of man will willingly work in this way.

IS INDUSTRY STIFLING INTELLIGENCE?¹¹

by Donald A. Laird

ARE we a nation of morons? Is industry itself becoming more of a moron with each advance in automatic machinery? There are many who think we are a nation of morons. They take the results of the Army mental tests at their face value without exercising a cool scientific judgment of the value of the facts. Is industry really stifling American intelligence by its mechanical advances? This is a serious question, for its answer determines whether America will be a nation of morons a generation from now. About as regularly as someone is predicting the end

¹¹ Adapted from the *Dearborn Independent*, April 30, 1927.

of the world on a certain date, some prominent person in a magazine article or public address predicts that modern machine industry will lower our mental levels. Both predictions are possibly equally true.

I recently visited a glass factory the name of which is probably on much of the glassware in your home. A sweltering hot room with low stools scattered around the floor was peopled by slow-moving, dull-faced men. Most of them were past middle age. They were collecting small pellets of molten glass on the end of a blowpipe, shaping it roughly with a stick, and then blowing a small ornamental glass bulb which you may have hanging in your hall fixture now.

We walked past the furnace where the molten glass was heated, shielding our faces from the light and heat. A few steps brought us to a machine of which you could get two in your garage. This was connected to the vat of molten glass. This room was much cooler than the other. Whir-r—Click—Whir-r—Click. Clank! The machine stopped. A bright-faced young man made a few adjustments, brushed away some fragments of broken glass, pushed the red button on the controlling switch, and went to the other side of the machine to see if the bulbs were being blown properly by the machine. Whir-r—Click.

"Wonderful machine," I said. "Much easier than blowing the bulbs by hand."

The vice-president who was showing me through the plant smiled.

"Wonderful, but not easier," he replied. "In the room back of the furnace are skilled glass workers. But not one of them has the skill to operate this machine. A blowpipe, a stick, a mold, and a long gentle blow are all they can understand. The young man who has to adjust this machine continually is one of the most intelligent workers we have. If he were to quit we would have to get one of our research engineers to run it."

No morons were in demand by that machine.

"How perfectly simple," my wife exclaimed a fortnight later when she saw, for the first time, an automatic screw machine which made some of the parts on the typewriter I am using.

The man watching over its operations gave her a puzzled look.

When we were out of hearing the works manager said, "If John hadn't been sworn out the last two hours you'd have had an earful. He had been having trouble with the machine. Couldn't get it to work the way it should; parts off a thousandth of an inch. The master mechanic told him about half an hour ago that it was perfectly simple. Didn't you see that look? I brought you up here first because I wanted to see if production had started on the machine again."

A moron would have been of little use in operating that machine. Just try to repair your typewriter if you think industry is reducing man to a machine. When I think of the trouble I have in simply changing a ribbon I marvel at the dexterity and skill of those I watched assemble and adjust typewriters that afternoon.

THE IRON MAN ¹²*by Arthur Pound*

FIRST, the man and the beast; then, the man and the hand-tool; now, the man and the machine-tool!

"Machine-tools may be classified in two main groups: those which lengthen and strengthen the arm of the worker without displacing his will as the vital function of work, and those whose principal function is to supplant the worker, or to reduce his function to a minimum."

An example of the first class is the jib crane. The operator must direct the machine; his mind must work with his muscle precisely as his forebears had to apply both mind and muscle to their simple levers.

In the second class, the ability to do the work is a primary function of the machine itself, and inherent in the mechanism. Designed to accomplish its task independent of human direction, the attendant need not know the necessary steps that the machine takes in doing the work. He need not know how to repair it in case of a jam: that is another man's job. All the attendant is required to do is to feed the machine with material and relieve it of produce. Even starting and stopping the machine may be done by another, so minutely is the work-function divided.

Of course, there are varying degrees of completeness in the application of the self-functioning principle to machines. Some machines are nearly automatic. The pneumatic riveter, for instance, requires skill for its operation, but the technique is more easily attained than that of the hand-riveter. However, the trend toward complete automatization is strong and steady throughout industry.

Transferring the vital function of production from the operative to the machine involves taking a certain skill away from the rank and file and concentrating it in the directing and organizing end of industry. The heats of competition, playing through machine improvements, evaporate skill from the lower reaches of industry and distill it in the upper reaches. Fewer producers need skill; but those few require much longer training and more highly intensified mental powers. It is up to them, not only to design, build, place, and adapt machines to involved tasks, but also to work out systems under which the production of those machines can be coördinated and the produce distributed. To fit an automatic machine for its production-cycle requires high skill in tool-designing and pattern-making. Head and hand must work together; jigs and dies must be of the utmost precision. The number of skilled workmen required for this task is small compared to the whole number of industrial employees; but the group is of key importance.

Let us examine the effect of automatic and semi-automatic machinery upon the minds of its attendants—the mill operatives. Such machines make relatively small demands upon the wits of their companions; the

¹² Adapted from *The Iron Man in Industry*, Little, Brown & Co., 1922, pages 1-34 passim.

operative's job is more passive, mentally, than active. Once his limited function is learned, once the man knows how to place standardized material in proper, predetermined fashion, he can earn his pay without further mental effort. He must be attentive, must "dot and carry one" exactly so, because the machine is valuable, and failure to move when and as directed may cost his employer more in spoilage than the operative's yearly wage. The man is not so much driven, as paced; his usefulness depends upon his never failing the strident call of the Iron Man. He nurses his charge, feeds it, relieves it of produce, and perhaps makes slight repairs in a jam. But, if the case is serious, he calls a machinist, just as an infant's nurse calls for the physician in an emergency.

Assembling of interchangeable machined parts proceeds, in efficient plants, with almost equally minute division of function. Your automobile frame, let us say, is hoisted so that it may acquire axles. Then it moves along a conveyer before gangs of men, each of whom performs thereon a certain specified task for which just so much time is allowed, because the conveyer moves at a fixed rate of speed, and each gang is allotted a space alongside, and moves forward and back in that space as the conveyer works. One attaches the right front-wheel; another the left rear-wheel; a third tightens certain screws with a pneumatic wrench. Let a single human fail in his assignment, and rather than permit that delay to clog the whole line of cars in process, the lagging unit is pulled out of line, to await the next shift. Thus, within an hour from the time a naked frame starts down the assembly line, a shrewd and swiftly moving division of labor has completed thereon a finished motor-car, capable of moving to the loading docks under its own power. Its power-plant has been both painted and dried within the hour.

In that swift progress hundreds of men have worked upon each car, combining into effectiveness the work of other thousands, whose produce is brought up by truck from storerooms and source-factories, and rushed into assigned positions. Each man performs the same task over and over; tightens identical nuts, lifts identical parts off a rack, and applies each one of them precisely to a something that is exactly like its predecessor to the thousandth of an inch.

Some of these operations involve much muscular effort, others little; but whether little or much, each operative uses the same set of muscles, for approximately the same length of time, in each repetition of his assigned operation. Roustabouts enjoy far more of the luxury of variety in toil than machine tenders in automatized factories.

It has been suggested that occupational specialization requires workers adapted to jobs mapped out in the office of the efficiency expert on the basis of time and motion studies. Similarly the specialization of communities in certain types of production results in

certain specifications which must be met by workmen—a fact emphasized by the following statement.

A TRIBUTE TO A CITY¹³

by J. M. Clark

RIDE through the industrial district stretching from South Chicago to Gary, and as you view the expanse of ugly flats and barrens, ask yourself why these people are here. Is this a place men would choose to live in? Certainly not, if they were free to move out to those blue, wooded hills beckoning in the distance. These people never wanted to live here. But the machines did, and that settled it. If you wish to see who it was that found this site desirable, look yonder at that row of pot-bellied Titans with their grotesquely sprawling limbs, squatting near a feed-trough that looks at least a quarter of a mile in length. Behold, my friends, the only beings who actually wanted to live here, out of a total population of a hundred thousand people and six blast furnaces! The rest are here because the furnaces are here and for no other reason. They either were bribed or came, under duress of earning their bread, to this place of dreary flatness where there seems no soil wherein the soul of man may strike its roots. Nor is this an isolated case. From Homestead to Hollywood machines have reared cities after their own needs, the like of which man never saw before.

* * *

Occupations, machines, plants, industries, and localities are specialized. All of these types of specialization can be discerned in a single industry, such as that of manufacturing automobiles. There specialized workmen—painters, electricians and mechanics—work with machines planned by skilled designers to produce results, suggested in part by specialized sales forces. One machine is designed to stamp fenders of a particular design; another to bore cylinder heads, or spray paint. Some plants are devoted to the manufacture of spark plugs, others to bodies and springs. Still others are used simply to assemble the finished products of this industry, specialized to produce a particular type of transportation service. The industry is centered in Detroit, a locality noted for its specialization in automobile manufacture, just as Chicago is noted for its meat-packing plants, and “Wall Street” for its financial houses. The reasons for these various types of specialization are legion. Some of them are related to careful planning, some to historical accidents, custom, and inertia. Why, for example, is Detroit the center of the automobile industry? Did the pioneers in the industry make an exhaustive canvass of the

¹³ Adapted from “The Empire of Machines,” an article in the *Yale Review*, October, 1922. Reprinted by special permission of the *Yale Review*.

industrial situation in the United States and conclude on the basis of economic calculations that Detroit was the ideal center for such an industry? Or, being located in Detroit, did they start manufacturing automobiles there and thus impart to that city certain advantages as an automobile center, such as a body of trained workmen and agencies skilled in automobile finance? The answer to this question is to be found in the study of details rather than of broad generalizations. In the following selection, which deals with the production of iron and steel, some reasons for various kinds of specialization are touched upon. Since the writing of this article, the technique of making steel has changed somewhat, so it should be regarded as a study in specialization rather than as an account of the latest methods of steel manufacture. The recent improvement in metallurgical technique has led to an economy in the use of bituminous coal which has reversed the ratio of ore to coal used in the blast furnace. While formerly it took possibly twice as much coal as ore to run a blast furnace, now it takes only three-fourths as much coal as ore. This has emancipated the iron and steel industry from the control of its location formerly exercised by the fuel supply, so that Pittsburgh is losing the leadership it held for a long time in the iron and steel industry.

IRON AND STEEL ¹⁴

by J. Russell Smith

Two black men, almost naked, squat on opposite sides of a fire in central Africa. Each of them has a little hand bellows with which he forces the fire. From time to time they lay on the fire lumps of charcoal and lumps of iron ore. All day they work and sweat, blowing and feeding their little fire. At evening a 10- or 12-pound lump of iron lies in the glowing coals ready to be hammered on the anvil and shaped into spear-head, knife, or kettle.

The men are smelting iron ore, which is a kind of rock with some iron mixed in with several other kinds of mineral. The hot fire makes the iron melt and run out, so that it can be gathered up and used.

It was very fortunate that man learned how to smelt iron with coal and coke. Before this time the iron industry had moved about, following the forests, to get a supply of charcoal. Since coal is so abundant in some places the iron industry was able to settle down. This explains the growth of great iron centers such as Pittsburgh.

As long as charcoal was used for the fire, the materials could not be piled up very high because the weight would crush the charcoal and smother the fire. But coke is hard, and layers of coke and ore can be piled to a great height and still let the air be forced through to feed the

¹⁴ Adapted from *Lessons in Community and National Life*, edited by Charles H. Judd and Leon C. Marshall, U. S. Department of the Interior, 1918.

fire. This has enabled the present iron furnace, called the blast furnace, to become several times as high as the one that made the cannon for Washington's cannon.

In the United States we now make 2 pounds of iron every day for every man, woman, and child. In fact, the American iron industry is larger than that of any other two countries. The size of our industry is due in large part to our great riches of raw material. We have the best iron ore in the world, whole mountains of it up in the woods near Lake Superior, soft like dirt so that it can be shoveled up, and so near the surface that we can take it out of open pits and in this way get it much more easily than from the deep mines which are elsewhere common in gathering metal. We also have very large areas of coal land to make the fuel to melt the ore, and plenty of limestone which is also put into the furnace because it unites with the dross and helps the smelting process.

American iron making has sprung up very quickly. In 1855 the first boat bringing iron ore from Lake Superior toward the eastern coal fields carried a cargo of 132 tons through the canal at Sault Ste. Marie. Just sixty years later, in 1915, a boat went through the same canal with 11,622 tons, and in the season of 1916 more than 60,000,000 tons of ore were carried from Lake Superior to the ports along the lower lakes.

Mining iron ore is the first step in the long process of making steel. The ore in the open pits is loosened with dynamite, and the steam shovel, running on railroad tracks, sticks its steel scoop into the loose ore five times a minute. Each time it takes up two tons, swings it around and drops it on the freight car on the next track. From a single open pit 15,000 tons of ore are hauled away in a night by locomotives. On one ore range, the Mesaba, more dirt has been moved to get at the ore than was moved to dig the Panama Canal.

The ore is taken from the mines in freight trains of 50 cars each, running to Duluth and other ports on Lake Superior. Here the trains run out on top of high ore docks and drop the ore through the bottom of the cars into big pockets on the dock. From these pockets it is automatically dropped through chutes into the steamers alongside. These vessels, 400 feet long, are loaded with 10,000 tons of ore in 20 minutes, and the same cargo can be unloaded in 3 hours and 20 minutes by huge machines called clamshell unloaders. They work almost as your double hands would in sand or sugar and take up as much as 15 tons at a scoop.

As the boats can work only in summer when the lakes are not frozen, some of the ore is brought down from the Lake Superior region and kept in great piles at lake ports like Buffalo, Cleveland, and Chicago until wanted in the winter. It is then carried by freight cars to the iron and steel mills at Pittsburgh, Youngstown or Harrisburg.

The freight cars run up on high trestles beside the great furnaces, 100 feet high, and roaring with fire from the bottom to top. The ore is dropped into storage bins, from the bottom of which it drops again into the weighing cars operated by the men who feed the furnaces. These

weighing cars run up on a little elevator called the skip hoist and automatically dump the ore or the coke or the limestone into the furnace.

A few hours later when the melted iron has trickled to the bottom, the furnace man taps the furnace by breaking the clay dam that holds back the melted iron. At a tapping a hundred tons of it may run out like milk into great ladles mounted on freight cars. These carry the molten metal to a steel mill, which may be a mile away, where it is further purified by fire and mixed with different metals to make the different kinds of steel. After coming from the steel furnaces, the metal is poured into molds, where it is allowed to harden just enough to hold its shape.

Then it is thrown upon rollers that carry it to the crushing rolls of the rolling mill, which, driven by engines of several thousand horsepower, will crush the big ingot of steel as a rolling pin in the hands of a cook shapes pie crust.

Different kinds of rollers shape the steel. It may be shaped into a flat plate for an engine boiler, a rail for the trolley track, a girder for the skyscraper, a rod for the blacksmith, a pipe for the plumber, or a chunk of steel to be used in the foundry, the machine shop, or the automobile factory.

The finished product costs only a cent or two a pound, yet it takes at least a thousand men to make it. Who are these thousand men? They are always members of gangs—gangs of strippers taking dirt from the ore, gangs of steam shovelers, train crew, dock crew, boat crew, moor-dock crews, gangs of iron furnace men, steel furnace men, yard men, yard train crews, rolling-mill men. Then the limestone and the coal and the coke must be followed through all their stages before we have one single pound of steel completed. Yet the two half-naked black men in Africa made steel all by themselves—a very good steel too, but very costly, and very little of it.

. . .

In 1919 the average number of wage earners employed per establishment in the steel works and rolling mills of the United States was 750.¹⁵ And in the same year 53.5 per cent of the wage earners employed in all manufacturing enterprises had at least 249 fellow workers in the same establishment.

According to the federal Census Bureau, "It seems probable that until the year 1850 the bulk of general manufacturing done in the United States was carried on in the shop and the household by the labor of the family or individual proprietors, with separate assistants."

What accounts for the striking growth of large-scale production in the United States during the past three-quarters of a century? Some of the reasons have already been touched upon in the chapter.

¹⁵ The term establishment, as used in the United States Census Bureau, has a technical meaning, but usually indicates a single factory or plant.

Others will be emphasized in subsequent discussion of our financial system. Some of the factors which have promoted large-scale production are indicated in the following statement dealing with those industries where individual establishments are very large.

SOME CAUSES OF LARGE-SCALE PRODUCTION¹⁶

by W. L. Thorp

THE industry in which establishments are the largest, on the average, is that of sugar refining. The nature of the sugar-refining process is such as to make production on a small scale well-nigh impossible. The machinery is very complex, and quantity production is essential. The enormous capital investment required to prepare a refinery for activity has been concentrated, therefore, in a small number of very large establishments.

The industry ranking second in respect to concentration is the rubber boot and shoe industry, with which may be discussed the rubber belting and hose industry. In these fields there are three fundamental reasons for large-scale operation: First, the fact that the control of these industries is centered in the hands of a small number of individuals; second, the technical requirements of the industrial processes, and third, the use of raw materials which must be imported from South America or the East Indies. Since the most economical method is to acquire this material in bulk, the rubber industries require a large outlay of capital. This same situation is a factor of importance in the sugar-refining industry in those cases in which unrefined sugar is imported from the West Indies.

The remaining ten industries in which concentration is outstanding are all metal or metal-product industries. The three smelting and refining industries—copper, lead and zinc—appear, and also steel works and rolling mills and blast furnaces. Five industries making complex metal products complete the list—steel shipbuilding, locomotives, steam-railroad cars, electric cars, and ordnance. In these industries the scale must be large because the unit manufactured is large. Locomotives cannot be made by one man turning out a small value-product per year.

. . .

It is possible to make a very imposing list of the possible economies in production, marketing, management and financial administration gained by large-scale production. Whether these economies would apply in any specific case is quite another question, whose answer depends on the particular situation of a firm in a given industry at a particular time. Some of the complicating factors in the universal application of generalizations about the economies of large-scale production appear in the following conclusions drawn from a study of

¹⁶ Adapted from "The Integration of Industrial Operation," Census Monograph III, pages 79-80, Government Printing Office, Washington, D. C., 1924.

industries where small-scale production is commonly found most profitable.

SMALL-SCALE PRODUCTION ¹⁷

by *W. L. Thorp*

SOME of the general types of industry in which small-scale production is necessary are:

1. Industries whose products cannot be standardized and establishments which attempt to make products to suit the differing tastes of consumers. Such industries produce "tailored" suits, high-grade furniture, art goods, finely bound books, etc.
2. Industries producing for a small market, such as those manufacturing artist's materials, nets and seines, models and patterns.
3. Industries in which the local market is small and whose product has a high transportation cost. In the manufacture of artificial stone-products, or bricks in many localities, the activity could never be conducted on a large scale because of the limitation of the market for its product and the expense of transportation.
4. Industries in which the material used is widely scattered and cannot be concentrated because of high transportation cost or rapid deterioration. Cheese factories and cider mills may be included in this class.
5. Industries in which skilled labor is the chief element, such as engravings, job printing, etc., whose products are services rather than commodities.

* * *

One of the phases of the machine process which has had much to do with the size, character, and location of industrial plants is that of mechanical power. The relation between sources of power and the continuing industrial revolution is sketched in the following article.

POWER

INDUSTRIAL development and high standards of living in the United States rest in large degree on mechanical power. To supplement human and animal energy, various forms of outside power have been brought into play,—the energy of water, wind and tides; the power of the steam engine and internal combustion engine; and finally the electric dynamo and motor.

Water power has the longest history of the different forms of power. It might almost be said that the technique of water power came over on the *Mayflower* along with the huge cargo of ancestors and furniture for which that ship is noted. For it was only eight years after the Pilgrims

¹⁷ Adapted from "The Integration of Industrial Operation," Census Monograph III, page 89, Government Printing Office, Washington, D. C., 1924.

had settled at Plymouth that they began to develop the sources of water power abounding on the New England topography. The short but swift rivers, with bends and rapids and tumbling falls, were admirably suited to the turning of mill wheels. Endicott's first colony erected a water mill for the grinding of grain as early as 1628.

The Dutch colonists, however, had been more accustomed to windmill power than water power. Accordingly, the windmills which are traditionally associated with the picturesque landscape of Holland were transplanted in no small numbers to the New Netherlands. The course of development of windmill power follows closely the story of water power. Windmills in colonial days, in addition to pumping water, were used to grind grain and to saw lumber. In fact, they provided one of the major sources of energy. When the day of steam power appeared in the early nineteenth century, the rôle of windmills suffered a relative decline along with water power. But when electricity appeared on the scene, both water power and wind power were revived for purposes of electric generation. The use of wind for this purpose is very recent, and as yet is not very extensive. At present there are three companies in this country which manufacture windmill generators, chiefly for use in rural districts.

The harnessing of the tides for power purposes has a history parallel to that of wind and water power. In colonial days tide-mills were constructed at Boston and on the north shore of Long Island. A dike was built across the mouth of a marsh or inlet, so arranged that the tide could enter and fill the reservoir thus formed. Here it was retained until the receding ocean left a head of water sufficient to turn a water wheel for a few hours. Today the same principle of a tide-mill is being invoked at the Bay of Fundy, although now the water wheel is not used directly for the accomplishment of mechanical tasks, but is used to spin an electric generator which in turn will provide the current to turn motors wherever needed.

In general, water power played a rôle in the industrial revolution in this country fully as strategic as the improvement of textile machinery or the division of labor. The emerging factories were competing with household industry as well as with the workshop crafts. In this triangular competition it was the technical efficiency of the water power as well as the need for concentrating manufacture under the same roof with the bulky water-frame that left the victory with the mill industries and started the United States on its course of industrial growth.

If it were water power which furnished the start, it was steam power which laid the basis of industrial expansion during the last century. Steam not only turns the wheels of factories but also provides the means of transport to bring the raw materials to the factory, to carry the finished products to domestic and foreign markets, and to transport people from place to place. The annals of the steam engine go back to Hero of Alexandria who, in the century before Christ, constructed as a plaything a device known as the "globe of the winds" which amounted,

in fact, to a small steam engine. It was not until the eighteenth century, however, that the motive power of steam was put to useful work in pumping water from the British coal mines. A series of inventions, associated with the names of Savery, Papin, Newcomen and Watt, laid the basis for the modern steam engine.

By the beginning of the nineteenth century the steam engine had been introduced into the United States, and this country was definitely embarking on a career of steam power. Our forest resources at first provided the fuel, and when coal began to be used under the boilers, the abundant Appalachian coal deposits gave the United States a great power advantage. The earliest steam engines were of the low pressure type made by the Boulton and Watt firm of England. In fact, it was a Watt engine which propelled Fulton's *Clermont* on its famous trip up the Hudson in 1807. About this time, however, high-pressure engines were also coming into use. Credit for the invention of the high-pressure noncondensing engine belongs to Oliver Evans of Pennsylvania, who has been called with reason "the Watt of America."

Between 1840 and 1850 a controversy arose in New England as to the relative economy of steam and water power in textile mills. The people who advocated steam claimed that the latter could be operated at a more uniform speed, and that a finer grade of goods could be produced than by water power. About this time large steam cotton factories were erected at Portsmouth, Newburyport, Salem and Providence. It seems that the New England industries were beginning to outgrow the water power at their disposal. This demand for more power and for better control of machinery hastened the development of the water turbine and devices for governing the speed of water wheels, assisting water to compete with steam for a while longer. It was not until 1870 that the steam used in manufacture in the United States finally exceeded the amount of water power.

About this time, 1870, the internal combustion engine appeared on the scene with the invention of the Otto gas engine. It is this important power mechanism which makes possible today our 23 million automobiles, the thousands of small power boats which ply the coasts and rivers, and the stationary engines used for every conceivable mechanical purpose. By the time the gas engine was invented, the petroleum industry was already well under way. It had made its start on the strength of kerosene as an illuminating fuel, but as soon as the gasoline engine came into use, an entirely new field for petroleum products was created, and the two industries advanced together on the basis of mutual stimulation. Oil has now become so popular as a fuel that, not content with our own huge production, we have imported oil since 1909.

Electricity, the youngest child of inventive genius, has undergone such rapid growth that it is now the giant of the family. The number of inventions which have gone into the making of electricity are too many to recount, but as an organized commercial undertaking the electric power industry dates back only as far as 1882. Then the first generating plant

was built at Pearl Street, New York City, on the initiative of Thomas Edison. At first the current was used for lighting only, but before long the sale of current for power as well as lighting became the aim of the infant industry. By a discrimination of rates in favor of power users, factory managers were induced to use purchased current from the new "central stations," and to substitute electric drive for steam drive.

Somewhere between 1914 and 1919, the electric power used to turn the wheels in factories outstripped all other forms of power drive. Steam power and water power are still important, but they are increasingly used as intermediate agents in the generation of electricity, rather than to perform work directly. It must be remembered that electricity is not an independent form of power. Electricity always requires some other form of power as a "prime mover." For example, in a steam-electric plant (which consumes both coal and water) the motive power for the electric generation is furnished by steam, and rests fundamentally upon the energy stored up in coal. In hydro-electric stations the generators are spun by water turbines, and the original force comes from the pressure of falling water.

Among the many advantages of electricity, the one overwhelming asset which largely accounts for the "electrical age" we live in today is the transmissibility of electric current. The current may be generated in central stations, transmitted over wires or cables to distant points of consumption, and there used for power, light, and heat or for electro-chemical purposes. The range of steam power is limited by the length of the belt or shaft connecting the steam engine with the machine or implement which performs the useful work, but electricity is free from this limitation and nowadays may be transmitted 250 miles and more from the point of generation.

. . .

That mechanical power, an absolutely essential servant of modern industry, presents its own peculiar "servant problem" is indicated by the following account of the Diesel engine's threat of a revolution in the transportation industry. The threat of such a revolution, needless to say, affords slight comfort to those having large investments in coal-burning equipment.

THE DIESEL ENGINE DOOMS THE SMOKE-STACK ¹⁸

by Gilson Gardner

IT WON'T be many years now before all new trans-Atlantic passenger ships will be without funnels. The old smoke-stack is doomed. It is passing with the old steam engine. ON one of the newest and finest boats, the *Asturia*, leaving Southampton, England, on her maiden voyage,

¹⁸ Adapted from an article circulated by the Scripps-Howard Newspapers, October, 1926.

the smoke-stack is admitted by the builders to be merely "ornamental." What they mean is merely "conventional." It is, they say, "for looks" because "people would not like to sail on a ship so odd in appearance as it would be without funnels." Which is quite true. We are all creatures of habit and of unreasoning prejudices based on habit. And we cling to our smoke-stacks for the same reason that made people a hundred years ago refuse to embark on steam-driven ships that did not also carry sails.

In the mechanical world the Diesel engine is almost as important an event as the internal combustion engine [our gasoline automobile engine] was when it came along to push out or supplement the steam engine. The Diesel engine is a glorification of the automobile engine. It takes the latter two jumps ahead. The first jump is the consumption [internally] of crude oil instead of the expensive highly volatile gas; and the second jump is the doing away with all electric adjuncts for the purpose of "firing" the chamber, and accomplishing the "firing" by sheer compression and the heat produced by this compression. Figure to yourself, if you can, a steel chamber with walls six inches thick and a great leverage brought to bear to contract this steel chamber with no outlet for the gas, air or whatever may be within it. Such contraction produces heat. It is almost like the old simile of an irresistible force meeting an immovable body. In fact, it raises the temperature of the steel chamber to some two or three thousand degrees Fahrenheit. Now figure also a pinhole in one of the walls of the steel chamber through which is squeezed under great pressure one little drop of crude oil. Something is bound to happen to that drop of crude oil. Something does. It burns. It explodes. It is broken up into all the elements of which it is composed and all these elements are converted instantly into gases; and all these gases try to escape. They press terrifically on the four walls of the steel chamber, and as one of the walls is a piston head and can be gradually forced back—back it goes. And that is the driving force of the Diesel engine. No steam, no fuel to heat the steam. No bunkers for the fuel, no boilers, no smoke-stacks, no stokers. The fuel is fluid and is carried in tanks. It is conveyed by pipes to the engine.

The Diesel engine is a German invention. The World War deprived the Germans of any patent monopoly in the principle and gave it free to the world and this fact will, no doubt, greatly hasten its development and adoption in competition with steam. Its effect can hardly be over-estimated. Already it is being adapted to railroad use. The Baldwin locomotive works are now about ready to put it on the market. Eventually, no doubt, it will replace our very wasteful automobile engine and stop the great drain on the oil deposit.

. . .

The use of machine technique has led to a striking standardization of product, process, and materials. Before Model A was introduced, fifteen million Fords were made on the same basic pattern, Model T.

The interchangeable parts were assembled in plants all built on the same plan. Key 65 fitted thousands of locks.

To many the standardization of products, turned out by large-scale machine methods, seems a fortunate arrangement. They see in it the means by which manufactured products can be widely distributed at costs much lower than if their fabrication depended upon handicraft or small-scale methods of production.

Others doubt that the standardization of products dictated by large-scale machine methods is an unmitigated blessing. They think it frequently carries with it a standardization of thought and action which submerges individuality and tends to promote a dead level of uniformity. They find, for example, no pleasure in the report that radio announcers, speaking through a nation-wide set-up of standardized machines, are serving to eliminate the linguistic peculiarities of various sections of the country, such as the southern "drawl" and the rolled r's of the West. Nor are they pleased by the fact that the great bulk of the people in New York, New Orleans, and San Francisco consumes the same types of products sold through national advertising campaigns, and the same ideas handled through standardized publications.

In the following article there is a good-natured lament over the invasion of an ancient domestic art by large-scale machine methods of production. There follows a note indicative of the degree to which standardization of products has invaded the domain of intimate personal relationships.

THE NEW BREAD ¹⁰

by Hendrik Willem Van Loon

REGULARLY once a week I betake me to my excellent friend the grocery-man, and I say, "Listen, Citizen. You and I have wandered far and wide across the face of the globe. We have slept beneath the Southern Cross and we have lain shivering amidst the awful gloom of the Muscovite prairies. But wherever we have gone we have been able to eat bread. B-R-E-A-D, bread—a fine and glorious substance that made up for a thousand occasional lapses of the local culinary arrangements.

"And now, please contemplate what you have been sending me these last seven days. A mixture of sand and gypsum! A substance that will neither cut nor toast nor allow itself to be made into a respectable pudding. The product of a correspondence school in mineralogy. Indigestible starch."

And regularly once a week the manager of our suburban commissariat

¹⁰ Adapted from an article in the *American Mercury*, January, 1926.

shakes his head and sadly answers, "It is all I can give you. I have to eat it myself."

Then, in hopeful fashion, I begin, "How about that Italian bread we had last year?"

"The wop has gone out of business. The Trust bought him out. He is now running a factory that makes genuine Chianti."

"How about the German bread we had six months ago?"

"The German baker was driven to the wall by the Trust. He left town."

"How about some matzos?"

"The Trust now makes matzos. Pure matzos with a guarantee that dates back to Solomon. But they taste like fish food."

"How about that marvelous French bread you used to get from New York?"

"The Trust killed the French bread business. Their publicity managers started the idea that it was unpatriotic to eat French bread while the French refused to pay their bills. The factory closed its doors. The men went back to France."

"Then there is no hope?"

"Not the slightest."

"And I have got to eat this paste?"

"Yes. But think of it! Each and every chunk is wrapped in an individual and special piece of paper. And no human hand has touched it."

"No human hand *should* touch it!" And with that parting shot I depart.

The above dialogue is neither new nor original. I am quite sure that a million other citizens who knew real bread in the days of their youth pester their grocers with similar inopportune questions and receive the identical answers. And meantime, the Bread Trust continues its nefarious labors, and by hiring thousands of square miles of billboards gradually persuades a long-suffering populace that the petrified husks it forces upon the burghers of our great Republic as Mother's or Sister's or Auntie's bread are the acme of the baker's art.

Of course I know the answer to this lamentation. Our modern world insists upon cleanliness and hygiene. Hence we are invited to eat indifferent food amidst surroundings that remind us of the operating room of a hospital; we are encouraged to drink acid concoctions that have never been defiled by the sight of a real honest-to-goodness, born-in-the-mud orange, and we are forced to eat bread "that no human hand has touched," or go without. And the eager mothers and fathers who hopefully absorb all the hopeful nonsense about a microbe-less age, who subscribe to an endless variety of household magazines that tend to turn the home into a barrack, congratulate each other that they have lived to see the day when they could (for a not too exorbitant price) get "real, clean bread."

Meanwhile the art of bread making is rapidly falling into desuetude. Soon the last of the bakers will be moved into the Smithsonian Institu-

tion, there to be shown among the stuffed effigies of Mohawk Indians, bartenders and the other noble and extinct races of men. All of which is a pity, for bread was, and in certain parts of the world continues to be, a most noble and honest part of the daily diet. It should be treated with great respect and humble gratitude, and not discarded as if it were merely an outworn type of machine-gun or trench-mortar. Not only was it pleasant to the palate, but it lent itself to the exercise of a great deal of artistic ingenuity. There used to be (until comparatively recent times) as many forms and shapes of bread as there were towns and countries.

The French liked their loaves long and fairly thick. The Italians fashioned theirs into something vaguely resembling frozen macaroni. The Swedes patterned theirs after the ancestral viking shield. The Germans dropped a sentimental tear upon Gretchen's grave and braided their bread into regulation *Schnecken*. The English, true to national tradition, "aerated" their bread in such a way that during a sudden national crisis the stuff might be used as ship's ballast.

These races, migrating to the New World, inspired the native biscuit and corndab artists to reach new heights of perfection. For a while it looked as if the United States were to become the Paradise of the Bakers. But, alas, the trend of the times willed it otherwise. Efficiency and hygiene, those two killjoys of the most recent of the inter-glacial eras, took a hand in the matter. They turned the joyous loaves into something as dull as a Sunday in Philadelphia. And a world which had just reduced the noble art of dining to a mere scramble for calories and vitamins accepted the innovation without a protest.

In a booklet entitled "Forms Suggested for Telegraph Messages Appropriate to New Year's Day, Easter, Thanksgiving Day, Christmas, Valentine's Day, Mother's Day, Birthdays, Weddings, and Births of Children, also Messages of Condolence and Congratulatory Messages to School or College Graduates and Public Men," a nation-wide telegraph company assures us that "The Telegraphed Greeting is Distinctive and So Warmly Personal." The booklet contains 315 standardized messages written in the offices of the company and adapted to the tastes of a hurried public content to check number one or number two and let it go at that. A few of these follow.

CONGRATULATORY MESSAGES TO A PUBLIC MAN ²⁰

WE HAVE just heard of your success, so richly deserved and so splendidly won. You have our warmest congratulations and all good wishes for the future. May it bring to you the rewards which are your due.

That the people of the State (City) have nominated a man like you is greatly to their credit. Every success to you in the coming campaign.

²⁰ Quoted from a booklet issued by the Western Union Telegraph Company, 1927.

Your audience was carried away last night by your convincing presentation of your subject. I congratulate you.

Your address last night I have read with pride. Your voice what we all would say had we your gift of expression. I congratulate you on your courage and eloquence.

VALENTINE MESSAGES

THE latest news by wire is that I am just as anxious as ever to be your Valentine.

True love is swift and flies on swallow's wings. Swift be the messenger who my love's message brings.

It's not the frills and laces that makes a Valentine. It's the message of affection, straight to your heart from mine.

* * *

Modern industry rests largely upon science. Without the research of scientists, the invention of machinery could not have proceeded so far as it has. A satisfactory account of science in industry would need to begin with the scientific revolution which came with the break-up of feudalism and of the religious tyranny of the medieval church; it would include the present stage of "scientific management"; and it would end with something hopeful or pessimistic about the possibility of solving human problems through social science. About the last of these considerations something will be said later in this volume. The only selection presented here on this general subject deals with some of the activities of chemists in revolutionizing production. It is written from a rather special point of view, with the intention of warning investors about the risks to business which are caused by scientific advances in industrial method. Incidentally, this brings to the front another effect of the machine—a new kind of hazard brought about by changing methods.

SCIENCE AND INDUSTRY ²¹

by Hugh Farrell

THE chemist is revolutionizing industry. He is developing new products and new ideas every hour of every day. As a result of his work, flourishing industries are being scrapped overnight.

New industries take the place of the old, of course, but, except in the instances in which the managers of the old industries have been wise enough and cautious enough to anticipate changes by keeping in touch with the progress of science, the new industries have new managers and new owners—the old managers and the old owners are wiped out.

²¹ Adapted from *What Price Progress*, by Hugh Farrell, pages 8-7, 17-18. Copyright 1926, by G. P. Putnam's Sons. Used by courtesy of the publishers.

Formerly these changes came slowly, but now they are coming faster. It has not been many years, as reckoned by a single life-time, since indigo growers of India lost their means of livelihood and their investment in the indigo industry as a result of the discovery of a chemical method of manufacturing a purer indigo from the waste products of coke manufacture.

Since that time, within the last year or so, in fact, the chemist has learned to make artificial silk, artificial rubber, artificial dyes, and, in addition, has actually created any number of things that never existed before at all. Some of these products have not been perfected and, at the present stage of their development, a few compare poorly with the natural products which ultimately they may supplant; but the perfecting of synthetic rubber and other products is only a matter of time, perhaps a very short time.

In most cases the chemist not only succeeds in duplicating the products of nature's laboratory; he actually improves upon the natural product—makes a stronger, a purer and a more lasting thing than nature can make. The chemist can even make more beautiful things than nature can make—his colors, or some of them, have no counterpart in nature and are vastly more brilliant and enduring.

If you don't know about what the chemist is doing you are to receive some startling information, especially if you have your money invested in some industry or other, which is running the risk of having its product matched or bettered in the laboratory at a production cost which the concern in which you are interested cannot meet.

Some such thing as this recently happened to the distillers of wood alcohol. This industry, with more than \$100,000,000 invested and an annual production valued at something around \$35,000,000 a year, has been dealt a very hard blow.

At the beginning of 1925 the industry reported that all was right with it and that the goose hung high. Two months later it didn't know whether it was an industry or not, or whether it was anything. In the meantime, or before (although the American wood alcohol industry didn't know it), a Frenchman and a German, too, discovered a process for manufacturing methanol (which is the scientific name for the kind of alcohol that is distilled from wood) that is so much cheaper than the distillation process that if all the inventors of the new process claim is true the wood alcohol industry in its present form will simply cease to exist.

Although the wood distillation industry counts an investment of \$100,000,000 and its products are valued at more than \$35,000,000 a year, it is not an industry in which general investors are greatly interested. But suppose what happened to the wood alcohol industry should happen to the steel industry, or the oil industry, or the leather, or rubber, or sugar, or any other of the numerous industries whose securities are owned and dealt in by the investing public?

Some of our greatest industries, the oil industry, for example, are subject to hazards of revolutionary change just as great as that which con-

fronts the wood alcohol industry. The chemist can and may find a substitute for gasoline that would revolutionize that industry. It may be that he has already found such a substitute.

The investor whose money is really in danger is the investor who has put his savings into industries which are not keeping up with the times in the matter of new processes and methods of manufacture of fundamental resources. Such an investor has real cause for alarm and a real grievance against the managers of the concerns in which his money is invested.

Aroused by the plight into which the wood alcohol distillers have fallen as a result of their neglect of research, Dr. Marston T. Bogert, professor of organic chemistry at Columbia University, makes the following comment on the backwardness of American industry in the matter of giving proper support to chemical research.

"American manufacturers have failed, on the whole, to understand the need for research to keep their industry at the front," he said. "German laboratories are better equipped and better manned than ever. They were developed for chemical warfare during the war and have not been allowed to deteriorate.

"Because manufacturers as a rule fail to inform themselves on the question of research they are apt to think, when a blow like this hits them, that they can recover the lost ground in a few weeks by putting several chemists together in a building and telling them to work out this secret. Progress can't be made that way. Germany has probably been working on this problem for a long time and the laboratory research of six or seven years cannot be extemporized in short-order fashion here.

"The wood alcohol industry here seems to be confronted with the choice of buying the secret, getting a high protective tariff, or closing up. The whole thing will have its value if it is appreciated by American manufacturers and the public as an object lesson of our backward-looking attitude toward research."

. . .

Machine methods of production have changed the character of markets radically. Not only do traders ship goods farther, they sell more in small areas because the machine has concentrated the population in cities. The perfecting of such mechanical devices as locomotives and refrigerator cars has had a very direct influence in developing broad markets, many of which depend for their very existence on the reliable performance of machines. But as modern markets depend on machines, so the use of mechanical methods is directly dependent on the existence of wide markets. It will be recalled that England's early supremacy in matters industrial was due in part to the fact that her merchants had long been sending ships far and wide to trade with colonists and heathen when the inventions were made which were said to have started the industrial revolution. Clearly large-scale production would be quite futile if markets were not available where standardized machine products could be sold in great quantities. Con-

sequently, in the chapter which follows, an attempt will be made to find out something about the character of markets in the day of the machine.

QUESTIONS

1. The date of the beginning of the so-called industrial revolution is usually fixed at about the middle of the eighteenth century. Why, as you see it, did it happen to come then instead of three centuries earlier or later? When was the industrial revolution over?
2. At the time that Eli Whitney invented the cotton gin, it was felt that he had contributed greatly to the welfare of the Southern states. Looking at his invention in the light of the economic history of the South for the past hundred years, do you think that this opinion was correct?
3. "A man's a fool to oppose the introduction of machinery. It's just like opposing a 100-per-cent increase in his strength." Do you agree?
4. The secretary of the Horse Association of America writes to the *Atlantic Monthly*, commenting upon the use of gasoline tractors in farming. What attitude would you expect him to take? How could he defend his position? Could the workers in Ford's tractor plant be called "agricultural workers" in any real sense?
5. How do you account for the fact that we are again turning to tides and winds for power after having virtually abandoned them?
6. What can be meant by the statement that we now live in a dynamic economic society, as opposed to a static society such as that which prevailed in the Middle Ages? What has science to do with this? How may science prove an enemy of the wage worker? the investor?
7. Employers frequently complain that their employees don't take an interest in their work. In what measure is this complaint due to the wide use of the machine?
8. Do you agree that the wide-spread introduction of machinery has tended to decrease the importance of the individual? Of all individuals or only of certain classes? Explain.
9. "Each improvement in the methods of generating and transmitting electricity brings a little nearer the day when great cities will begin to disintegrate." Do you see any possible basis for such an opinion? If so, what is it?
10. Do you subscribe to Mr. Littell's generalization that under modern industrial conditions "the men are not running the machines, but the machines are running them"?
11. To what extent is the education which you are purchasing affected by modern machine methods? Do you think this is essentially fortunate or unfortunate?
12. "The custom tailor, a relic of the past, will soon completely disappear under the pressure of competition imposed by large-scale clothing manufacturers." Do you agree?

CHAPTER IV

MARKETS

THIS chapter will deal with the system of distribution which has been developed along with the machine process of production just outlined. It will discuss the expansion of markets and suggest some of the problems of distribution with which we are confronted. The order is as follows:

1. A typical market of the seventeenth century.
2. The transition to more complex markets, and the rôle of transportation in that change.
3. Illustrations of modern markets.
4. The scope of modern marketing areas, as illustrated by the nature and extent of international trade.
5. The cost of distribution and the controversy about the "middle-man."

A NORTH CAROLINA tobacco farmer, selling his crop in the fall of 1925, complained that the price seemed rather low. The buyer agreed that the price was rather low, but said that there were good reasons for it. He explained that there had been an unfortunate incident at Shanghai, China. British troops had killed several Chinese students who had been participating in a demonstration against foreign control in China. This had inflamed the Chinese people, and they had declared a boycott on British products. This in turn had seriously affected the sale of British tobacco products in China, and consequently reduced the demand by British manufacturers for American tobacco. The North Carolina grower, he concluded, was suffering on account of an unfortunate international complication in China.

This incident serves to illustrate the development in our economic life which will be the principal subject for discussion in this chapter; that is, the transition from relatively simple markets and narrowly restricted marketing areas to highly complex markets drawing their products from all parts of the world.

Today a person who created all of the goods to satisfy his requirements would be regarded as a curiosity. There would be picturesque newspaper accounts of "a modern Robinson Crusoe," and people would probably travel far and no doubt pay admission to see him. There are, to be sure, people in backwoods areas who are largely self-sufficient, but they are interesting exceptions to the general run of specialized workers dependent upon others for most of the essential

elements in their livelihood. In this connection, to trace the sources of products found upon the table at any meal is a revealing exercise, and one that is often used to illustrate the bountiful character of modern economic life. It might just as well be used to illustrate the pitiable dependence of people today upon sources of supply over which they have no certain control.

The development of modern markets is, of course, simply another part of the same general story of how we have departed from a simple system of handicraft production to one of large-scale machine production. Since machine methods frequently are not efficient unless large quantities are produced, their development has been dependent in a great measure on that of extensive markets.

Improvements in transportation and communication have made a vital contribution to the development of extensive markets. Jules Verne, stretching his uncommonly flexible imagination fifty-odd years ago, wrote what seemed a fantastic account of a trip around the world in eighty days. Recently the trip was made in twenty-eight days, with every stage of the journey reported in detail throughout the world. While this was a "stunt," it was dramatically suggestive of what improvements in transportation and communication have done to break down barriers of distance and to promote extensive marketing areas.

When products are being widely distributed, both in point of space and time, there is a complicated problem of adjusting deliveries. This is one of the reasons for the "middleman" whose activities—the subject of much acrimonious debate—will be touched upon in this chapter.

A study purporting to indicate the full scope of the development of modern markets would start with an account of two primitive hunters trading trophies of the chase, probably now and then enforcing their sales talk with clubs. This chapter has no such pretensions to completeness. Consequently it begins with a description of a market in England at the time of Daniel DeFoe, who lived from 1630 to 1731, when markets were already highly developed.

STURBRIDGE FAIR¹

by Daniel DeFoe

HAVING been at Sturbridge Fair when it was in its Height in the month of September, I must say, that it is not only the greatest in the whole Nation, but I think in Europe.

¹ Adapted from *The Letters of Daniel DeFoe Concerning His Tour of Great Britain*, Vol. I, Letter 2, 1726.

It is kept in a large cornfield, near Casterton, extending from the side of the River Cam, towards the Road, for about a half a mile square.

If the Field be not cleared of the corn before a certain day in August, the Fairkeepers may trample it under-foot, to build their Booths or Tents. On the other hand, to balance that Severity, if the Fairkeepers have not cleared the Field by another certain day in September, the Ploughman may re-enter with plough and cart, and overthrow all into the dirt; and as for the Filth, Dung, Straw, etc., left behind by the Fairkeepers, which is very considerable, these become the Farmers' Fees, and make them full Amends for the trampling, riding, carting upon, and hardening the ground.

It is impossible to describe all the Parts and Circumstances of this Fair exactly; the Shops are placed in Rows like Streets, whereof one is called Cheapside; and here, as in several other Streets, are all sorts of Traders, who sell by Retale, and come chiefly from London. Here may be seen Goldsmiths, Toymen, Brasiers, Turners, Milaners, Haberdashers, Hatters, Mercers, Drapers, Pewterers, Chinawarehouses, and, in a word, all Trades that can be found in London; with Coffee-houses, Taverns, and Eating-houses in great Numbers; and all kept in Tents and Booths.

In the place peculiar to the Wholesale Dealers in the Woolen Manufacture, the Booths or Tents are of a vast Extent, having different Apartments, and the Quantities of goods they bring are so great, that the Insides of them look like so many vast Warehouses piled up with Goods to the Top. In this Duddery, as I have been informed, have been sold 100,000 Pounds-worth of Woolen Manufactures in less than a Week's Time; besides, the prodigious Trade carried on here by Wholesalers from London, and all Parts of England, who transact their Business wholly in their Pocketbooks; and meeting their Chapmen from all Parts, make up their Accompts, receive Money chiefly in Bills, and take Orders. These, they say, exceed by far the Sales of Goods actually brought to the Fair, and delivered in Kind; it being frequent for the London Wholesalers to carry back Orders from their Dealers, for 10,000 Pounds-worth of Goods a Man, and some such more. This especially respects those People who deal in heavy Goods, as Wholesale Grocers, Salters, Brasiers, Iron Merchants, Wine Merchants, and the like.

In the Duddery I saw one Warehouse, or Booth, consisting of six Apartments, all belonging to a Dealer in Norwich Stuffs only, who, they said, had there above 20,000 Pounds Value in those Goods.

But all this is still outdone, at least in Appearance, by two Articles which are the Peculiarities of this Fair, and are not exhibited until the other Part of the Fair, for the Woolen Manufacture, begins to close up: these are the WOOL, and the HOPS. There is scarce any price fixed for Hops in England till they know how they sell at Sturbridge Fair. The Quantity that appears in the Fair is indeed prodigious, and they take up a large Part of the Field, on which the Fair is kept to themselves; they are brought directly from Chelmsford in Essex, from Canterbury and Maid-

stone in Kent, and from Farnham in Surrey; besides what are brought from London, of the Growth of those and other Places.

To attend this Fair, and the prodigious Crowds of People which resort to it, there are sometimes no less than 50 Hackney Coaches, which come from London, and ply Night and Morning to carry the People to and from Cambridge; for there the Gross of them lodge; nay, which is still more strange, there are wherries brought from London on Waggon, to ply upon the little River Cam, and to row People up and down, from the Town, and from the Fair, as Occasion presents.

* * *

In the development from simple neighborhood markets—or perhaps better, from primitive production for direct use—to markets which draw upon the whole world, the technical improvements of the means of transportation and communication have, of course, played a major rôle. Only as oars have given way to sails, and sails in turn to steam turbines, has it been possible to develop such international markets as we have today. These markets are likewise dependent upon the services of telegraph systems and cables which bring the Shanghai buyer within a few minutes of the New York seller.

The relation between the development of transportation facilities and the widening of market areas is indicated in the two short selections which follow. It should be borne in mind that wide markets and specialized production are only two phases of the same thing. Fast and cheap transportation has made them both possible.

TRANSPORTATION AND MARKET CIRCLES ²

THE maximum load for a pack-horse was three-hundred pounds, while the ordinary load for a good, strong cart-horse on a first-rate road was a ton, or approximately seven times as much. This increase in power of the horse provided a corresponding increase in the distance over which bulky freight of small value could be economically moved, thus developing an incentive to production as well as benefits to those engaged in commerce. The best general exposition of this subject is by an English writer who says:

“Around every market place you may suppose a number of concentric circles to be drawn, within each of which certain articles become marketable, which were not so before, and thus become the source of wealth and prosperity to many individuals. Diminish the expense of carriage but one farthing, and you widen the circles; you form, as it were, a new creation, not only of stones and earth and trees and plants, but of men also, and what is more, of industry and happiness.”

² Adapted from “Traffic Geography,” *The Traffic Library*, edited by Elvin S. Ketchum for the Course in Traffic Management of the American Commerce Association, Chicago, 1915.

Good roads over which commodities can be carried in quantities, whether railroads or for wagon, mean the development of transportation agencies, the extension of the trade circles and the making of markets, as without facilities, transportation loses much of its economic and commercial value.

LOCOMOTIVES, MARKETS, AND SPECIALTIES ³

THE locomotive is a continental machine. The conquest of our continent would have been impossible without it. Where is our iron coming from? Without the freight locomotive the great iron regions of Lake Superior would be merely a geological curiosity. They are not on the lake but are reached by a rail haul. Can you imagine the tons of iron ore that go to Pittsburgh alone being carried from Biwabik down to Two Harbors on mule-back?

Is it not impossible to imagine the Southwest without the freight locomotive? The lead and zinc deposits of Southwest Missouri and Northeastern Oklahoma are far removed from any navigable water. Without the railroad the civilization of this region could never have been born. Kansas would be peopled by wandering tribes of herdsmen, living, in the absence of easily usable building material, in tents like the Turkomans of Asia. Their food would be milk and meat and they would be ruled by great chiefs with vast possessions of herds, furs and followers. And how infinitely poor even the great chiefs would be beside the Kansas farmer of today with his spreading wheat fields producing wheat enough in one year to last him and all his family for a lifetime. Kansas would not be a granary at all.

The freight locomotive has made possible the "specialty regions." The ancient grain-producing regions were all near the sea or traversed by a navigable river. Such was the plain of the Po in Italy. Sicily, a fertile island, was the granary of Rome. The American locomotive, however, carries the excess citrus fruits of California to fruitless New York, and carries our interior surpluses to the seaboard. America's tremendous agricultural exports depend upon its ability cheaply to reach the sea. After you reach the sea, distances are abolished; anything on the seaboard, outside of the Arctic region, is in the market already. The American locomotive serves American agriculture by getting to the water its products. The great competition between nations is in hauling their products to the seaboard.

* * *

Our present-day markets, besides being highly specialized, are extremely complex. Furthermore, there is no standard pattern one can study and thereby familiarize himself with markets in general. Each one, whether it be for hay or vaudeville talent, has its own peculiarities and complexities. In the following articles there are some sample

³ Adapted from the *Executive's Magazine*, April 5, 1926.

descriptions of markets. One is a short description of the Chicago livestock market. Another is concerned with a market for shares of industrial securities—the New York Stock Exchange.

THE CHICAGO LIVESTOCK MARKET⁴

by Rudolph Alexander Clemen

CHICAGO is the greatest livestock market in the world. The immense central stockyards, lying some miles to the southwest of the City Hall, are a feature of enormous magnitude in the life of the city. They cover about 500 acres, probably more, including Packingtown, where the packinghouses are. These 500 acres are covered with some 13,000 rectangular pens with double plank fences, paved with brick, concrete and tile, and fitted with racks for hay and concrete troughs for water. There are 25 miles of streets between the divisions of pens. It is said there are some 300 miles of railway trackage, which intersect the divisions or blocks of pens, and connect the yards with all the railways running into Chicago and also belt the yards and pierce every section of the packing and factory sections. Separate accommodations, except at unloading platforms, are provided for each kind of stock. The enclosures at the loading and unloading platforms each hold slightly more than one carload of stock. To economize space for better protection of the stock and facilitate movement from one part of the yards to another, there are miles of overhead viaducts and runways. Sheds of two stories, covering 75 acres, have been built for hogs, and there are also great covered sheep houses, both of which are in part double-decked. The water system which supplies the yards from artesian wells and also from Lake Michigan has a reservoir holding 10,000,000 gallons, and pumps whose daily capacity is 8,000,000 gallons.

The yards are managed by the Union Stock Yard and Transit Company of Chicago, which employs some 2,000 men to take care of the unloading and handling of the livestock. The company itself, however, is not engaged in the buying, selling, or slaughtering, or otherwise disposing of stock. The object of the company is solely to provide proper and adequate facilities for the reception, care, and handling of livestock.

A load of cattle to be marketed is brought by rail to the unloading platform of the stockyards, where the stockyards company receives, unloads, counts, and yards it in the pens assigned to the consigners. Stock is consigned not to individuals, but to commission firms operating in the yards. The pens themselves are owned by the stockyards company and are allotted to the commission firms, rent being charged the shipper at a per head yardage fee. The commission man sorts the load to the best advantage for selling and supervises feeding and watering until the sale is made.

⁴ Adapted from *The American Livestock and Meat Industry*, the Ronald Press Company, 1923, pages 540-547.

There are four classes of buyers in the larger livestock markets: the local packer who is buying for immediate slaughter; the buyer of a packing company which has no plant at that particular market; "order buyers," or those who are buying on orders from parties outside; and lastly, the stockman who comes to buy feeders. It is the buyers of the local packers and the feeder-buyers who really constitute the backbone of a market, but it would seem that it is the representatives of the outside packers, the order buyers, and the scalpers who prevent violent fluctuations in prices and tend to hold the normal spread between different markets.

The men who do the cattle buying are old hands at the business, and the extent of their responsibility may be judged from the fact that the 50 or 60 men of all companies in the several markets buy all the cattle disposed of through, in some cases, as many as 400 branch houses and by a force of 3,000 managers and salesmen. These men must not only possess the faculty of judging all manner of cattle by sight and in large numbers on the hoof, but must, at the same time, keep in mind the needs of the sales organizations regarding assortment of weights, kinds, and quality.

To this end one man in Chicago supervises all the buying of cattle for each company and keeps in telegraphic communication with the buyers at Fort Worth, Kansas City, East St. Louis, Sioux City, and St. Joseph. This head buyer has offices in a specially constructed building in the heart of the stockyards at Chicago, where he and his assistants do business with an army of commission men and against the competition of other packers, speculators, and feeders as well as a number of order buyers, who ship live cattle and killers throughout the East. The number of men in the buying department of Armour and Company, for example, is about 200. This number includes men who act as scalers, weight takers, yard men, and cattle drivers.

In all the big markets, cattle buyers are mounted. A corps of men, including the buyers of several packers, speculators, order buyers for eastern houses, and feeder-buyers, who sometimes pay higher prices than the packers, ride through one section of the pens after another until they see an opportunity of making a trade with some commission man who has a string of cattle which they like.

Each lot of cattle is stirred up in its turn and examined, and bids are made. For instance, a commission man shows a string of cattle of 10 or 20 carloads and sometimes lots as large as 50 to 100 carloads at seasons when cattle are plentiful.

THE STOCK EXCHANGE⁵

by Silas Bent

WITHIN this chamber an invisible host is gathered. Here are all the investors, all the speculators in listed securities of the world's richest

⁵ Adapted from an article in the *New York Times*, November 15, 1925.

nation. An immense army, compared with which the forces directed by Commander-in-Chief Coolidge are but a corporal's guard, confronts another army, not in the flesh but by proxy. One is the army of sellers, the other the army of buyers; and their proxies are the floor members of the New York Stock Exchange.

Across 3,000 miles of continent a San Francisco broker flashes his customer's order to New York, where it is telephoned over a direct wire to the Stock Exchange, executed with a shout, a responding nod, a scribbling in two pads, and flashed back to Frisco as a completed transaction, all within the space, on some occasions, of a single minute of time. New Orleans is here side by side with Duluth, and Charleston stands shoulder to shoulder with Omaha.

During the space of a single five-hour day, deals involving well above a hundred millions are thus consummated on faith, without the formality of a signature, in that building at Wall and Broad Streets which is the primary nerve center of all the globe's markets. The unbusiness-like procedure has gone on thus for almost a century, and never once has there been an attempt to wiggle out of a trade. Though bedlam reign in the closing quarter-hour of a boom day, though the shrill whistle, the occasional scream, the mounting roar, the ceaseless clatter bewilder and confuse the hardest head, the spoken word and a nod are enough. And they may mean the guillotine or resuscitation for this fortune or that.

The mezzanine gallery, open to visitors duly accredited by member firms, is crowded. What lies before these strangers, come to observe trafficking millions?

Across the high chamber two huge translucent ticker tapes, placed at such an angle that one of them may be seen from any part of the floor, present a moving picture in figures and cabalistic abbreviations of what is being done. The square floor is dotted with a score of trading posts, each the market of twenty or thirty listed stocks; and knots of men coagulate now more thickly around one of them, now around another, as the tide of trade shifts. In a far corner is the "money desk," where banks offer funds and where the brokers may get them at the "call rate" posted above it. At either side are enormous annunciator boards, one for even, one for odd numbers, and each designates a broker; they are operated by electricity, to summon the traders to their telephone booths for their orders. Through a wide archway may be seen the room where the trading in bonds goes on.

That is the mere geography of the New York Stock Exchange; its spirit, its restlessness, its fever, must be seen and heard and felt. The weaving mass of 1,100 traders on the floor, some moving leisurely, some darting frantically, is thickened by a multitude of messengers and "reporters" in uniforms of gray or uniform caps. The unsalaried President of the Exchange moves about unhurried, a trader like the others. The floor is a litter of torn paper. On this day the bears have rather the better of it, and the excitement mounts as the closing hour approaches.

Punctually at the stroke of 3 a huge gong at the side of the building begins clanging and continues for a full minute. Into the air an excited messenger tosses a torn paper, which descends in a snow storm on the shoulders of the brokers. The hoarse roar becomes a subdued buzzing, dies to a whisper by comparison. Another record day on the Stock Exchange has come to an end.

The day is at an end for the brokers, and they stroll singly or in couples from the building to their offices near-by as calm as Barrymore two minutes after the closet scene with his mother in *Hamlet*. It has been a good day. The brokers' commissions have run into millions, and tomorrow will be another day. They are without fear and without reproach, these traders; theirs is a commission business.

But within the Exchange the day is not yet done. The gallery is cleared, the traders are gone, but during the last quarter-hour the buying and selling has been at the rate of 3,000,000 shares in a day and even wizard electricity has been unable to keep pace with it. Over machines not unlike typewriters, operators have been sending to the ticker the record of the day's doings, but they have fallen behind. To catch up will take them another fifteen or twenty minutes. Messengers begin to arrive with the record from each broker's office of its transactions. By 2:15 p. m. on the morrow each broker must receive certificates for all the stock he has bought and pay for it. Half an hour after the gong gave its metallic "taps" to the trading, all is done and the floor is deserted.

Even yet the day has not been finished in the offices of the brokers, for in the boom times the best manned offices are likely to crack under the strain. The clerical force must be expert, trained especially for this work, and to augment it in an emergency is no easy task. A multitude of deals have been made by the larger houses, some on telegraphic, some on telephonic orders, comparatively few by letter. From a thousand cities the orders have poured in to sell or to buy at the market, to sell or buy when the market reached a certain figure. How many stop-loss orders have been executed, how many G. T. C. orders canceled? [G. T. C. means "Good 'Til Cancelled".]

The Stock Exchange unit is 100 shares, but many of these orders are for a number greater or less than 100 or its multiples; and such fractional orders have been handled by their own process and at a fractional addition to the cost, through houses specializing in odd lots. The firm must learn how it stands, and how much needs to be borrowed tomorrow, perchance, to meet the inevitable 2:15 p. m. The auditing and accounting may go, on such a day as this, far into the night.

Let us see what has been going on outside the Exchange to cause the hubbub within its four walls. Let us inspect the customers' room of a Broadway broker's suite.

A bluish haze of smoke hangs above the twoscore men seated or standing about the walls of the room. Here there are no women, and the men, their eyes fastened on an immense blackboard at the end of the place, wear

their hats. Above the board is a magnified translucent tape, such as we saw in the Stock Exchange. Not chalk, but printed figures and letters, tell the story on this board. Near a window stands a ticker, and an announcer, surrounded by a group of excited men, is droning the changes in price recorded there. Two young men in their shirtsleeves, incredibly dexterous, flip figures out of the grooves, and new figures, new fractions, into their places. The board cannot, of course, show all the 3,000 stocks listed on the New York Exchange; it notes threescore or less of those most active, which means most speculative and subject to change. It tells what dividends they pay, what the closing prices were the afternoon before, the opening, high, low and last prices of today. It looks like an enormous cross-word puzzle, in red, green, black, and white, filled erratically with figures and letters and groups of letters by some outpatient of that bedlam around the corner in Wall Street.

In the uncushioned wooden chairs sit all the types of that multitude which plays Wall Street; the habitual gamester alongside the lawyer who can "take it or leave it" and enters only at some such period as this. The chairs are full, and men lean listlessly against the walls or stand in little crowds, watching the figures and occasionally making notes on the backs of envelopes. Here there is no such excitement as on the floor of the Exchange.

Let us move now to one of the big banking houses over on Wall or William Street. In this customers' room even a sign of excitement would be extremely bad form. The surroundings are luxurious, the chairs and couches comfortably padded. Odd-lot orders are unknown. The men who gather here deal in hundreds of shares and many of them are reputed to be "in the know." Some of them are on the inside of banking pools which are stabilizing or manipulating certain highly speculative stocks.

And then let us move on uptown, where many of the big brokers and banking houses maintain branches for their merchant and feminine patrons. Here the customers' room is enlivened and colored by the female of the species, who has mastered the jargon of the Street, chats learnedly of oils and rails, and motors and the specialties, and buys on margin with the best of them.

But these are not the only places where the doings of that high square room off Broad Street are recorded with lightning speed as they occur. There are tickers in the offices of many bankers, many captains of industry, and many men who make it their business in life to play the market. The narrow paper tape unwinds in each of these places its staccato story of profits, sudden wealth or sudden loss. About most of them, on a day of high tension, there is a group of men, sometimes a mixed group; but at some of them there is a single person, studying intently the tale as it unfolds itself. How such operators behave was described when the "peace leak" in regard to Woodrow Wilson's note to Austria, during the World War, was under Congressional investigation in Wash-

ington. The story is worth retelling here as an illustration. One of the biggest speculators in the market of that day was being quizzed.

Yes, he said, he had made about a million dollars on the Wilson message. So? And how did he do that—through advance information?

No, he had his information like all the others. He explained that he had a semicircular desk, around which were ranged direct telephones to the brokers who did his trading for him on the Exchange; and that he sat, with each of the instruments in easy reach, as Mr. Wilson's message began coming verbatim over the ticker. The first paragraph told how peace-loving this United States was, and how its most ardent hope was that bloodshed might cease honorably in Europe. The second paragraph began with the word "But—"

"I dropped the tape," said this operator, "and went the round of my telephones, instructing each broker to sell."

"And you made a million?"

"Yes."

"But what did the rest of that paragraph say?"

"I don't know, I never read it."

As swift as the electric ticker must be the brain of the successful speculator in Wall Street.

The market for securities, just described, could hardly exist unless it were accompanied by a highly developed system of communicating orders and reporting current prices. A newspaper system of market reporting is described in the following statement. There is a similarly highly developed system of price reporting for a number of the leading commodity markets.

REPORTING THE MARKET NEWS⁶

by Paul Willard Garrett

THE *New York Evening Post* keeps a crew of tabulators at work on the stock and bond tables all day. These *Post* tabulators sit beside stock tickers from ten o'clock in the morning when the New York Stock Exchange and New York Curb Market open until three in the afternoon when they close. Through the fingers of each tabulator flows one-fifth of a mile of ticker tape every day. At intervals of about an inch on this tape are printed abbreviations by which the alert tabulator instantly can tell what stock has just been bought and sold down at the Stock Exchange, and at what price. If, for example, the tabulator sees the flash '3 A 146' he knows that 300 shares of Atchison, Topeka and Santa Fé Railroad shares have just sold at \$146 a share. The tabulators make a record on the sheets before them of the day's transactions. But

⁶ Adapted from an article in *Editor and Publisher*, June 5, 1926, page 28.

how to get the record from the tabulator's sheet into type and this into the newspaper is another problem.

Opposite each tabulator stand two compositors. These compositors are expert in the handling of hand type. As the tabulator reads his prices from the tape, and calls them out to the compositor, the compositor corrects his type. The tabulator spends the whole day making his record and correcting it as new sales appear. The compositor spends the whole day putting the record into type and correcting it as new changes appear. The tabulators and compositors several times each day check their results in the interest of accuracy. That is how these experts are able to have a completed record of the day's transactions by the time the market closes. As the last sale appears on the tape the compositors rush to the composing room with their type and soon thereafter the presses start. Within a little while the papers are off the press, the distributing wagons and messengers pick up papers on the run and before the early crowd in the financial district starts homeward the *Post* is on sale at the stands.

. . .

We have seen something of the complexity of modern markets. A consideration of the scope of modern markets leads us beyond the confines of a particular country, for international trade on a world-wide scale is characteristic of the modern marketing system. Of course, a far-flung trade was carried on for many centuries before the industrial revolution, and, in fact, before the nations of today had begun to scratch their boundary lines on the map of the world. The trend toward world markets has been more pronounced, however, as improved facilities for transportation and communication have served to make the world smaller. The clipper ship, the steamship, and the oil-burner have made successive contributions to the broadening of markets, and the creation of a system for the exchange of goods which is truly world-wide.

It should not be thought, however, that international trade constitutes the bulk of the marketing transactions for a particular nation. Possibly ten per cent of the trade carried on by the citizens of the United States today is international in character, and the rest of it is domestic. The percentage of international trade would be much larger for Great Britain, since the latter country is relatively more dependent upon foreign markets and foreign sources of supply.

THE NATURE OF INTERNATIONAL TRADE⁷

by L. C. and Thomas F. Ford

THE saying "Distant fields are always green" is well illustrated in the realms of commerce. Strange products from far-off lands have al-

⁷ Adapted from *Foreign Trade of the United States*, Charles Scribner's Sons, 1920.

ways had a fascination that has been of immense importance in the development of commerce. The willingness of savage tribes to exchange food, furs, and even services for multicolored baubles of glass, sparkling trinkets, fantastic articles of clothing, and other intrinsically worthless trifles has been the means of building up vast private fortunes and of opening up new trade routes.

The trade in tobacco, which reaches mammoth proportions, is an example of a great industry founded on an artificial taste deliberately cultivated. All of the luxuries, such as diamonds, beautiful fabrics, hand-wrought works of art, pictures, and even books, each forming a large item in the world's commerce, are supplied in response to a demand for something more than the tiresome necessities of life, which basically is not so different from the longing of the savage soul for beads and trinkets.

Does a nation lack the raw materials essential to the development and maintenance of manufacturing on a large scale? Immediately it constructs or arranges for the transportation facilities necessary to a world-wide trade and brings from far-off lands those raw materials it lacks, converts them into finished products, and sells the surplus back to the very countries from which it obtained the essential raw materials.

This is well illustrated in the case of England, which has for years imported great quantities of raw cotton from the United States, and exported manufactured cotton in the form of textiles to the United States; has imported wool from Australia and Argentina, converted it into yarn, worsteds, and other fabrics, and sold these finished products to the countries supplying the raw materials, as well as to others. Germany, likewise, built up a tremendous foreign trade by going beyond her own domains for many of the raw materials of commerce, converting these into valuable manufactured products and selling them to the various nations of the earth. The restrictions placed upon industry by conditions of climate, soil, and population have thus been effectually removed, and nations heavily handicapped by nature have risen to positions of industrial and commercial eminence.

The last half-century has witnessed the greatest growth of the centuries in the international exchange of commodities, culminating in 1913, when the combined value of all articles entering the trade between nations exceeded \$40,000,000,000, which was just double that of 1900. The reasons for this expansion are many. Increase in the population of the world and in the wants of that population; a greater specialization in industry; better and cheaper methods of production and transportation; the development of new fields for the supply of raw materials, and a more generally diffused prosperity resulting in greater purchasing power, are all factors whose combined result made the first thirteen years of the twentieth century the period of greatest industrial and commercial activity since the dawn of civilization.

The foreign trade of the United States increased from \$152,000,000 in 1810 to \$4,258,000,000 in 1914, or about twenty-eightfold. In the same period the population increased from 7,200,000 to 98,200,000, or

about fourteenfold. Our foreign trade, then, has increased at twice as great a ratio as our population, the per capita increase being from \$21 in 1810 to \$43 in 1914. Between 1914 and 1918, under the stimulus of the World War, our trade attained enormous proportions, but since many conditions of that trade were abnormal the returns for that period do not afford reliable data for analysis.

The change in the character of our foreign trade is quite as important as the increase in volume and value. Great changes have taken place, the most striking being the position manufactured wares have attained in the export trade, especially since 1900. The increasing importance of such raw materials as rubber, wool, hides and skins, and textile fibres in our imports further emphasizes the position manufactures occupy in our trade relations with other countries.

While we are still a great agricultural nation, manufacturing has so forged ahead that since 1914 about one-half of our exports has been manufactured articles. This change has created new problems in regard to the marketing of our surplus products in foreign countries; it has brought us into direct competition with the other great manufacturing nations; it has given us a new interest in the extension of our trade with the less-developed countries, such as Chile, Argentina, Brazil, Russia, Australia, South Africa, and Canada, all countries that import great quantities of manufactures and export foodstuffs and raw materials; it has made for more highly organized and more aggressive methods in foreign trade.

To say that a given nation is leading the world in the volume and value of its foreign trade is not equivalent to saying that the people of that nation enjoy a larger proportion of the comforts and luxuries of life, or that they possess superior ability or greater advantages than those of other nations. It may mean that they live in an unproductive land and are obliged to depend upon a few commodities, which they exchange with more favored nations for the necessities of life. Aden, a British coaling-station in southern Arabia, has the largest per capita foreign trade recorded, because it is a sterile country and its people have to import all articles of food and clothing as well as building material, fuel, and drinking-water. In exchange for these commodities they give their services in coaling vessels passing through the Suez Canal and the Red Sea. Their standard of living is not high, and they are not the most prosperous people of the globe.

It is popularly supposed that export trade is more valuable than import trade, and that it is this branch of commerce that must be encouraged. On the other hand, it may be shown that the gain to a country is in its imports; unless it receives for its exports commodities more desirable than those parted with, there is no advantage in the exchange, except that derived by the individuals who may make a profit on the transactions. The United States may export cutlery to England and import similar articles from England, that could be produced here just as well and just as cheaply. In that case, the only gain is that derived

by the traders engaged and by the transportation and marine insurance companies. In its broadest aspects, then, foreign trade is only profitable when it adds to the comfort, the ease, the gratification of the people as a whole.

The immediate effect of the World War has been to arouse in the nations engaged a determination to be self-sustaining to a degree never attempted since modern commercial methods have prevailed. It is commonly asserted that the territorial division of labor made possible by foreign trade leads to extreme specialization, where one country or group of countries may become wholly agricultural and another country or group of countries may depend entirely upon manufacturing, to a sacrifice of self-sufficiency that may lead to serious difficulties in times of war or stress.

While a healthful balance of industries such as France has been able to maintain may be desirable, nevertheless, extreme self-sufficiency entails such a sacrifice as modern nations will hardly care to make under normal conditions. The economic and industrial waste of a nation's trying to produce all that it consumes is evident. The plan that is bound to prevail is for each nation to devote the major part of its energies to the production of those commodities in which it excels and for which its climate and natural conditions eminently fit it, and to distribute these products to wide areas, receiving in exchange those commodities that it cannot produce to the best advantage.

. . .

A by-word of the great period of exploration during the sixteenth and seventeenth centuries was "Trade follows the flag." Since the coming of machine production on a gigantic scale, it has come to be more generally asserted that "The flag follows trade." This means that great industrial concerns are constantly pushing out into broader marketing areas in order to dispose of their products, and that armies not infrequently follow sales organizations into foreign lands.

This constant struggle for markets involves a number of major problems. One is that of adjusting the inevitable clash between commercial interests of different countries, and different sections of the same country. Fruit growers of California and Florida, separated by three thousand miles, vie with each other for greater accessibility to the populous market for their products in New York and New England, and use every weapon at their command to gain the upper hand. Coal merchants in Newcastle, England, and Bluefield, West Virginia, cast envious eyes on the coal market in Italy and employ every available device to best each other in making sales there. The adjustment of these clashes of opposing sectional and national interests, discussed in subsequent chapters on "Newer Forms of Competition" and "The Tariff," presents one of the problems raised in the constant struggle for markets.

Another problem growing out of this struggle is that of the mounting cost of selling goods, as opposed to fabricating them. In the earlier days of the machine era the most prevalent query of the business man was "How can we make the goods?" Now the question is often "How can we sell the goods?" The answer has frequently been to develop elaborate sales organizations dedicated to what has come to be described as "high-pressure" selling and advertising.

This elaborate system of selling products has given rise to the question of whether or not too large a share of our resources is being devoted to salesmanship; and it is vigorously contended by some that there is a large amount of waste in our present system of placing products in the hands of consumers. Some of the specific charges of waste will be considered in a subsequent chapter. Here little more than the general nature of the problem involved in appraising our system of marketing products will be presented. The discussion will run in terms of "distribution," a term which is used with two distinct meanings in economic literature. It is frequently used to describe the process of dividing the proceeds of economic activity in terms of wages, interest, profits, *etcetera*. It is also used widely to describe the transfer of the products of farms and factories to consumers. It is in the latter sense that the term is used in this chapter. In the following article there is a discussion of some of the reasons why a mounting share of our available resources is being devoted to distribution.

THE PROBLEM OF DISTRIBUTION ⁸

INDUSTRIES generally have been developed from small institutions conceived by an individual or a few men to meet a comparatively local requirement. Enterprise and ambition have developed small, local business institutions into vast organizations producing commodities in great volume and distributing them into every section of the country. These concerns reflect the policies, purposes, and ideals of the men who manage them, and are operated with little consideration of any general scheme of economic distribution. Each concern seeks markets according to its own theories in competition with all other institutions making similar effort.

The primary purpose of manufacturing is to operate plants and make commodities. Selling and delivering is a necessary adjunct, considered chiefly as a means to a continuation of manufacture. The processes of manufacture are tangible and lend themselves readily to engineering skill. Therefore manufacturers have reduced production to an almost exact science and in time of competitive need have devised more economical processes of manufacture. This, however, has not been the case in their

⁸ Adapted from *Report of the Joint Commission of Agricultural Inquiry*, Part IV, Government Printing Office, Washington, D. C., 1921.

dealing with the problems of distribution. In the face of competition the tendency has been to exert greater effort to force goods out through the channels of distribution, making greater expenditures, and devising new methods to compel the distribution of their merchandise in competition with similar effort on the part of other manufacturers.

The function of wholesaling originally was that of creating a market for manufacturers and disposing of merchandise within an easily served radius. The wholesaler carried a reserve stock to supply retailers and was looked upon by the manufacturer as the market outlet for his products. However, with the development of strenuous competition, the manufacturers developed special sales organizations to call upon the retail dealers and interest them in new products or to urge them to buy in larger volume products that they were then handling.

Under these conditions the wholesaler ceased to be a market creator and relied upon manufacturers to create demand and secure orders which they would fill and distribute. Advertising was looked upon by the manufacturers as a compelling force which would send consumers into retail stores to demand brands or varieties exploited by the manufacturers. Added to this, manufacturers put in the field sample distributors, demonstrators, and canvassers to compel retailers to distribute the commodities thus introduced, with the result that the retailers ceased actively to create markets for new products. Manufacturer after manufacturer repeated the process, until the public and the distributor were confronted by a confusing urge to buy more products in constantly increasing variety. Buying habits were upset and consumers ceased to give their patronage to individual merchants and scattered their buying not only within the community in which they lived but made purchases abroad, either by mail or in person.

To overcome this tendency and to attract additional trade, retailers devised new services, greater conveniences, and adopted new selling methods. All of these activities tended to create a greater volume of business and established new merchandising standards, but they also added new expenses in the operation of business. By creating greater volume of business, profits per dollar of sales were reduced, but the tendency has been toward a constantly increasing cost of distribution, until the public now pays more for package, convenience, and service than it pays for the commodity contained in the package.

During the period of development of new commodities and new services, more and more people entered the fields of industry and distribution, and competition became increasingly severe. A constantly increasing proportion of the population found employment in the activities of handling, transporting, storing, converting, and distributing commodities and meeting new demands for supplemental services. Out of the spread between the producer and the consumer compensation for all of these people must be found, and this brings the American public face to face with the problem of devising a less expensive and more efficient system of distributing the absolute essentials—food, clothing, shelter, and fuel.

The cost of distribution is made up of an infinite number and variety of costs of material and services, each of which influences the others and all of which combine to make the price which the final consumer pays. These factors vary in influence upon one another and upon the final price from year to year, from month to month, and even from day to day. They are each a part of a complex and flexible price structure which is extremely sensitive to governmental, economic, and psychological forces, such as taxes, interest rates, freight rates, custom, habit, usage, and practices of producers, consumers, and distributive agencies. There is no single factor in this complex price structure which can be said to be primarily or even principally responsible for the spread between producers' and consumers' prices.

To answer the question of whether or not too large a share of our resources is being devoted to distribution, two types of inquiry must be made. One is a study of the human and material resources devoted to that purpose as compared to those devoted to making products ready to enter the distributive system. The other is a study of what this system accomplishes with the resources used.

It is obvious that answers to both of these closely related questions are essential to any balanced judgment of the merits of our present system of distribution. If two-thirds of our resources are devoted to distribution, that might suggest that our economic system is over-balanced in that direction. But if all of the activities involved are essential to placing the products of farm and factory in the hands of consumers, the large percentage of resources devoted to distribution would not, of itself, condemn the system. Likewise, if only five per cent of our resources of men and materials were found to be devoted to distribution and the system were found to be inefficient and wasteful, it would still be commanding too large a share of our resources.

A study of the relative cost of distribution involves at the outset the question of just what is to be defined as distribution. Iron ore scooped from the Mesaba range of Minnesota is shipped by boat and train to Pittsburgh. There it is converted into steel which in turn may be shipped to an automobile spring manufacturer in Ohio. Springs are fabricated and shipped to Detroit for use in the manufacture of automobiles, some of which are then shipped to Seattle. In this sequence what part of the activity can be classified as distribution? Is it what takes place after the finished automobile leaves the factory door in Detroit, or does it include many of the activities starting with the digging of the iron ore, such as the selling, transporting, and storing of the raw materials on their way to become a part of a finished automobile?

Most of the discussion of distribution is limited to the movement of finished products into the hands of consumers. It fails to include within the idea of distribution all activities such as selling, storing and transporting raw materials on their way to becoming finished products. One writer, however,—Ralph Borsodi—protests against this limited view of distribution.⁹ Under the heading of distribution he includes both “physical distribution,” *i. e.*, transportation and storage through all the stages of the process, and “marketing,” or the buying and selling of both raw materials and finished products.

With this definition of distribution, Mr. Borsodi ventures the rough estimate that of approximately thirty-five billion dollars spent for retail purchases in 1923, about two-thirds was spent for distribution. The research staff of Swift and Company has made an estimate of the cost of distribution, based on the sales of clothing, foodstuffs, and supplies manufactured by forty factories and sold by both large and small dealers. The Swift estimate¹⁰ is that 41 per cent of the consumer's dollar goes to pay for raw materials and manufacturing expenses, and 59 per cent for marketing expenses. Whether the “marketing expenses,” used in the Swift estimate, include all of the physical handling of finished products, such as transportation and storage, which Mr. Borsodi includes as part of “distribution,” is not clear.

The only way that comprehensive information showing the relative amount of our resources devoted to distribution can be obtained is by (1) making a clear-cut definition of what distribution is, and (2) making a detailed analysis of the costs of distribution of a large number of specific products. In the following statement there is an analysis of the relative cost of distribution of two products, manufactured from agricultural commodities. It was upon a rearrangement of such figures for four agricultural commodities that Mr. Borsodi based his general estimate of the cost of distribution. Mr. Borsodi would probably be among those most ready to agree that before an accurate estimate of the relative cost of distribution as a whole can be obtained, hundreds of studies such as that which follows, must be made. With such figures available there would still be room for dispute about just what should be classified as distribution. The definition of distribution employed in the statements following, it will be noted, is that of the transfer of finished products into the hands of consumers, but the figures are in such form that they can be arranged to suit Mr. Borsodi's definition of distribution.

⁹ *The Distribution Age*, D. Appleton & Co., 1927.

¹⁰ Quoted in *Marketing Methods and Policies*, by Paul D. Converse, Prentice-Hall, Inc., 1924, page 7.

SAMPLES OF DISTRIBUTION COSTS ¹¹

TABLE I

Distribution of Dollar Consumer Pays For Bread

	1913	1916	1921
<i>Production</i>	(Cents)	(Cents)	(Cents)
Wheat Farmer Receives.	28.0	32.7	28.1
Transportation.	2.8	2.3	2.6
Elevator Margin and Profit.	1.1	2.3	2.8
Flour Manufacture. ....	.6	.7	.6
Transportation.	2.4	2.8	4.4
Cost of Bread Manufacture.	8.7	9.5	12.3
Total.	43.6	50.3	50.8
<i>Distribution</i>			
Manufacturer's Cost of Selling. . .	15.7	15.2	16.4
Overhead.	12.2	8.8	8.5
Profit.	7.0	4.4	5.7
Retailer's Operating Expense.	13.8	15.4	15.7
Profit.	7.7	5.9	2.9
Total.	56.4	49.7	49.2

TABLE I indicates that approximately 50 cents of the dollar the consumer pays for bread is absorbed in the cost of distribution, while the agricultural producer received an average of 29.6 cents for wheat in the local market out of the consumer's dollar in the years 1913, 1916, and 1921. His wheat is the substantial raw material element from which bread is made, but it has to be transported, handled through elevators, graded, sold to the miller, and converted into flour before it becomes prepared raw material, acceptable to the manufacturing baker. These combined services were performed during the period under consideration at an average cost of 8.43 cents per dollar of sales. The average cost of manufacture of flour into bread was 10.16 cents out of a dollar of sales.

The service element in the manufacturing baker's distribution of bread is a considerable factor in the cost to the consumer. His deliveries are made daily and his individual sales are comparatively small, measured in terms of dollars. It is quite possible that the consumer finds the con-

¹¹ Adapted from the *Report of the Joint Commission of Agricultural Inquiry*, Part IV, Government Printing Office, Washington, D. C., 1921.

venience of being able to secure fresh bread daily of as great value as the commodity itself. Under modern living conditions many consumers find it inconvenient to do their own baking, and not infrequently more expensive in time, fuel and materials, than to buy manufactured bread at a price that includes cost of distribution. However, it seems possible that greater efficiency can be developed which will tend to reduce the manufacturing baker's selling cost and overhead and the retail grocer's operating expense. It does not appear that the manufacturing baker has exacted an undue profit in taking 5.7 cents from the consumer's dollar for manufacturing and distributing bread to the retailer.

It would appear, however, that the retailer's average operating expense of 14.96 cents and the baker's average selling expense of 15.76 cents should be reduced by improvement of method. To some degree, consumer's demand for variety causes duplication of service on the part of several bakeries making daily deliveries to the same retailers. The competitive element among manufacturing bakeries in their effort to com-

TABLE II

Distribution of Dollar Consumer Pays for Corn Flakes

	1913	1916	1921
Production	Cents	Cents	Cents
Corn Farmer Receives.....	16.2	29.1	21.0
Transportation.....	2.9	3.5	5.9
Elevator Margin and Profit.....	4.5	3.9	1.6
Cost of Manufacture.....	5.9	7.8	8.1
Total	29.5	44.3	36.6
Distribution			
Manufacturer's Cost of Selling...	10.2	11.1	7.3
Advertising.....	11.1	5.6	4.5
Transportation.....	6.8	8.6	9.1
Taxes.....	2.8	2.2	7.0
Profit.....	4.9	.5	8.3
Wholesaler's Operating Expense..	6.7	6.9	8.3
Profit.....	2.0	1.7	.4*
Retailer's Operating Expense.....	14.6	10.8	13.3
Profit.....	11.4	8.3	6.0
Total	70.5	55.7	63.4

* Loss.

mand markets naturally tends to increase the amount of service and the cost of selling.

That it should cost approximately an average of 63 cents of the consumer's dollar to distribute 37 cents' worth of corn flakes, indicates a very definite need of an improvement in the processes of distribution. During the period shown in Table II the producer received for his corn in his local market an average of 22.1 cents out of the dollar which the ultimate consumer paid for the corn manufactured into corn flakes. The service of transporting, grading, handling, and selling to the manufacturer costs on the average approximately 7.5 cents. In 1921 the manufacturers had reduced the cost of advertising and selling to 11.8 cents out of the dollar the consumer paid for corn flakes, in comparison with an expenditure of 16.7 cents in 1916 and 21.3 cents in 1913 for the same purpose. It seems quite probable that an increased turnover of corn flakes on the part of the wholesale grocer and the retailer grocer could materially reduce their operating expenses. The wholesaler in 1921 absorbed a loss of 0.4 cents and his operating cost was 8.3 cents. The retail grocer handled corn flakes at an operating cost of 13.3 cents and received out of the dollar in sales of corn flakes 6 cents profit. The manufacturer's profit of 8.3 cents out of the dollar the consumer paid for corn flakes seems disproportionate to the wholesaler's loss of 0.4 cents and the retailer's profit of 6 cents.

. . .

Were the relative cost of distribution to be definitely established, that would not settle the question of whether too large or too small a share of our resources is being devoted to that purpose. There would remain the vital question of what is being accomplished by distribution, a question which hinges not so much on the relative cost of distribution as on its effectiveness. When the wheat farmer is advised that he receives less than a third of the money paid for bread, he naturally wants to know just for what the balance is paid. And when he is told that all of the people who handle the wheat after it leaves the farm on its way to the bread consumer take a toll for their services, he quite generally concludes that there are too many "middlemen," too many "parasites" as he might call them, taking unholy tribute from his hard labors. Is his conclusion sound? That depends primarily, as has been noted, on what all of these people are doing. An adequate answer to that question depends, in turn, upon a detailed survey of nothing less than our entire economic system.

As a conclusion to this chapter, three fragments are presented which reflect rather general attitudes toward our present system of distribution. The first launches a wholesale attack on the distributive system; the second defends it; the third not only defends it but suggests the lack of conformity in present definitions of distribution by greatly broadening that term. The opinions are presented not as

worthy to be accepted at face value but rather to give direction to discussion in subsequent chapters.

OUR WASTEFUL SYSTEM OF DISTRIBUTION ¹²

MANIFESTLY the most wasteful part of our economic system is that concerned with distribution. In production we are far ahead of any previous period in the world's history. Our agriculture has hitherto supplied the needs of a rapidly growing population, even if now it must be developed more intensively. But in distribution, in getting the product to the consumer, we make no progress, unless it be in the one particular of transportation. On the other hand, there is enormous waste of effort.

Every investigation of the high retail price of agricultural produce—meats, cereals, dairy, vegetable, or fruit products—has shown an enormous gap between the price received by the first producer and that paid by the ultimate consumer, an ever-widening gap, for which a complicated system of distributing middlemen is largely responsible.

A long line of commission men, produce merchants, jobbers, hucksters, retailers, and what-nots, simply passing goods from hand to hand like a bucket brigade at a fire, is not only inefficient and wasteful, but very costly. In these days a hydrant and a line of hose are wanted.

OUR SYSTEM OF DISTRIBUTION—"THE BEST POSSIBLE" ¹³

by Loyd Ring Coleman

VIEWED in a detached manner, the human method of getting goods seems riotously wasteful. Here is a farmer selling his wheat to a commission merchant who in turn sells to an agent of an elevator which, by virtue of a salesman, gets its wheat into a mill. Then follow several transactions, separated in each case by more salesmen. The wheat goes from mill to jobber or bakery, possibly to another jobber, to retailer, to consumer. Perhaps twelve people make their livings in the mere handling of this wheat, which one man produces.

It does look wasteful, but what are the facts? The farmer sells where he can sell to the best advantage. It is cheaper for him to sell as he does than it would be to sell by any other method. If it weren't, wouldn't he be very foolish to sell as he does? But no one has ever found a cheaper way that was acceptable. Theoretically, better systems have been evolved, but the human equation spoiled them. Take out any one of the twelve people in this complicated system, and the farmer's produce will cost the consumer even more than it does.

Apparently, specialization pays even in distribution. Division of labor brought down the costs in production, and the splitting of dis-

¹² Adapted from the *Report of the Massachusetts Commission on the Cost of Living*, 1910.

¹³ Adapted from "What's Right with Distribution?", an article in *Advertising and Selling*, August 24, 1927.

tribution into specialized units makes it possible to market the increase. Possibly the greatest contribution made by this highly integrated and developed scheme of marketing is its creation of new wants for the producers to satisfy. If the merchandising of goods were a merely mechanical operation, it could be handled by a lot of slot machines. But the human factor is necessary that more wants be created, to the end that more wealth may be produced.

To say that our present distribution system works, is an incontrovertible starting point. To say that we are more prosperous than we were in 1827, when we didn't have it, is another certainty. Among practical people, results count. And certainly the consumer is consuming more, and is therefore, presumably, happier than he was a century ago.

It would be a trouble-inviting thing to say, but none the less accurate, that under the existing psychological and economic conditions the much defamed distribution system is the best system possible. By assuming a new society, a better system could be conceived. But it seems a bit easier to make the system fit the human race than to remake the human race to fit the system.

OUR SYSTEM OF DISTRIBUTION—COSTLY BUT WORTH IT ¹⁴

by Bruce Barton

THE cost of production is going to become smaller and smaller relatively, and the cost of distribution, so called, is going to become larger and larger relatively. I never argue against that statement, because against the ledger of distribution is charged not merely the processes of handling goods, but all of the activities of the doctor, and the musician, and the artist, and the teacher, as well as the merchant and the advertising man. Distribution is expensive and is going to become more expensive, not because it is inefficient, but because it carries the burden of all the services that make modern civilization most worth while, and living most comfortable and worth having.

That may not be sound economics, but it seems to me it is common sense, and I think we weaken our cause when we try to argue that distribution is inexpensive or ever again will be inexpensive. Distribution is going to become more and more expensive, because life gets richer and richer as we go along.

. . .

QUESTIONS

1. It is said that "specialization is limited by the extent of the market." Explain why this is so. What are the factors which, in turn, limit the extent of the market?
2. Has the great extension of market areas made us more or less de-

¹⁴ Adapted from "What Future the Distributor's?", an article in *System*, February, 1927.

pendent upon foreign nations? Upon other parts of the country? Do you regard such developments as desirable?

3. Did the buyers at Sturbridge Fair have a better chance to tell whether they were getting their "money's worth" than buyers do, as a rule, in markets today?
4. "A nation's prosperity depends upon an excess of exports over imports."—Criticize.
5. A writer has recently characterized this as the "age of distribution," because such an enormous amount of energy is devoted to the marketing of products. Outline what you think are the possible advantages and disadvantages of living in such an "age." Do you think the World War should be listed as one of the disadvantages? Explain.
6. What is meant by saying that the costs of distribution are too large? What are the tests to be applied in determining whether they are too large?
7. What is meant by "middlemen"? Are there too many of them? If so, in what lines are there too many of them? How do you know?
8. "A very large share of the controversy over 'middlemen' and the high cost of distribution could be eliminated if the contestants would take the time to reach an agreement on definitions." Do you see any basis for this view? Explain.

MONEY, COMMERCIAL CREDIT, AND COMMERCIAL BANKING

THIS chapter, after indicating why money and credit play such an important rôle in our present economic organization, will be concerned primarily with commercial credit and commercial banking. It will discuss:

1. Money as a medium of exchange.
2. The present monetary system of the United States.
3. Commercial credit as an aid to production.
4. The principal activities of commercial banks.
5. The organization and control of the commercial banking system in the United States, with particular reference to:
 - (a) The National Banking System.
 - (b) The Federal Reserve System.

IN THE discussion of specialization only casual reference was made to the fact that people have necessarily learned how to simplify the trading of specialized goods and services. Obviously it would be impossible for a highly trained surgeon to trade surgical operations directly for food, haircuts, train rides, and clothes. To appreciate the difficulty it is only necessary to visualize the surgeon, kit in hand, going from place to place inquiring, "Any operations today?" in the hope that he might trade one for some meals or a motor car. Likewise, it would be very difficult for the manufacturer of paving bricks to trade these promiscuously for the things he requires for a livelihood.

If specialization is to be carried on successfully, there must be some device by which the surgeon, the paving-brick manufacturer, the bolt tightener and all other specialists can trade conveniently their specialized products for the products they require. The device used is money. The surgeon or the bolt tightener sells his services for dollars, marks, francs or whatever the prevailing monetary unit happens to be, and these in turn he can convert into other specialized products in such proportions as he sees fit. Such a system of exchange is an essential element in every community where there is trading. At present there are a few instances of barter, the direct exchange of goods and services, but they are relatively insignificant. The growth of specialization and trading in machine days has made the use of money more important than ever.

While the use of money saves much time that would be lost in a barter system, it does not meet all the difficulties involved in trading

commodities under our present system. When production is on a large scale and is highly specialized, goods generally must be produced in anticipation of sale, which sale usually takes place months after the goods have been completed. The Massachusetts textile manufacturer, fabricating goods in the fall to be sold in California the following summer, would find it quite inconvenient to wait until the California retailer received payment for the goods and shipped the money to Massachusetts via the various channels of trade. How could he buy his cotton or pay his workmen? Here is the problem of devising some way of meeting operating expenses long before the final sale of the product to consumers. Various methods have been developed by which the manufacturer, through the use of written promises or notes, is enabled to obtain payment for his goods even before the retailer has seen them. The increase of payments of this type accounts in substantial measure for the growth of commercial banking. Money, commercial credit, and commercial banking, all closely allied features of the highly specialized exchange methods of a machine life, are to be considered in this chapter. Investment credit and investment banking will be studied in the next chapter.

Money, the first subject of discussion here, is an extremely venerable as well as an almost universally used device. The written history of our ancestors does not go back far enough to disclose a period when no form of money was used to simplify the exchange of goods. Even the most primitive tribes at present have some kind of monetary system. Money has in the past taken an amazing variety of forms, ranging all the way from cattle and nails to cheese and tea. At present things as dissimilar as fish hooks, Federal Reserve notes, and rock salt are used as money.

All of the strange things serving as money have one common quality. They are generally acceptable in the communities where they are used, providing assurance that people taking them in payment for goods and services will, in turn, be able to pass them on in exchange for things they wish to purchase.

In the United States today various kinds of metal and paper, appropriately shaped and decorated, serve as money. Of payments aggregating approximately eight hundred billion dollars annually, about one hundred billion are made in this form. The balance is made by means of checks which reduce the danger of loss, assure correct change, provide their own receipts, and overcome other objections made against metal and paper money, such as bulk and filth.

Although money payments constitute a relatively small fraction of the total made annually, money forms an important part of the under-

pinning of our credit system which makes possible the much larger volume of check payments. Consequently we shall consider the monetary system before turning to the study of commercial credit and commercial banking. The following statements describe the various kinds of money in circulation at the present time.

CURRENCY IN THE UNITED STATES¹

by William Foster and Waddill Catchings

CURRENCY in the United States consists of gold coin, silver dollars, paper money and convenient amounts of so-called subsidiary money—half-dollars, quarters, dimes, nickels and pennies.

The volume of gold coin fluctuates in amount with the production of gold, and with the export and import of gold, for any one owning gold bullion may at any time obtain from the United States Government the corresponding amount of gold coin, and anyone owning gold coin may obtain the corresponding amount of gold bullion. In 1922 there were about 400 million silver dollars in the Treasury or in circulation. There is no reason to convert silver dollars into bullion, for as bullion the silver in a dollar is not worth a dollar. Paper money consists of gold and silver certificates, United States notes, United States Treasury notes, National Bank notes, Federal Reserve Bank notes, and Federal Reserve notes. Each gold certificate represents a corresponding amount of gold in the United States Treasury, and the certificates are exchangeable for gold, and gold is exchangeable for certificates. Likewise, silver certificates represent actual silver dollars in the United States Treasury and are exchangeable for these dollars; and silver dollars may be exchanged for silver certificates.

For many years, there have been \$346,681,016 of the United States notes, and under the law this amount remains unchanged. Against these notes there is a gold reserve of approximately \$150,000,000. When these notes are redeemed, they are re-issued. United States Treasury notes were issued to pay for the silver purchased under the Act of July 14, 1890. The amount of these notes has been reduced by the coinage of silver dollars, until today it is only approximately \$1,500,000.

National Bank notes may be issued at any time, by any National Bank, in any amount not exceeding at any one time one hundred per cent of the amount of the capital of the Bank. When these notes are issued, the issuing bank must deposit with the Treasurer of the United States, United States Government bonds, at par, or at market price if this is lower, to the full amount of the notes issued, and in addition five per cent of the amount of the notes in lawful money to be used in redeeming such of these notes as are presented for redemption.

¹ Adapted from *Money*, Pollak Foundation for Economic Research, Newton 58, Mass. Third edition, revised 1927, pages 22-24, 26.

MONEYS IN CIRCULATION IN THE UNITED STATES ²

NAME	BACKING	LEGAL TENDER POWERS	ISSUING AGENCY	AMOUNT IN CIRCULATION DEC. 1, 1927
Gold Certificates.	Dollar for dollar in gold	Full	U. S. Government	\$1,094,793,359
Silver Certificates.	Dollar for dollar in silver	Not legal tender	U. S. Government	392,297,291
Treasury Notes.	Dollar for dollar in silver plus the gold reserve held against U. S. notes	Full	U. S. Government	1,317,600
United States Notes.	Gold reserve of \$150,000,000 against \$346,681,016 of notes issued	Full	U. S. Government	298,116,035
National Bank Notes	100% in U. S. bonds plus 5% in lawful money. Redemption protected by U. S. Government	Not legal tender but receivable for taxes and customs	National Banks under supervision of U. S. Government	639,027,883
Federal Reserve Bank Notes	Same as National Bank notes	Same as National Bank notes	Federal Reserve Banks under supervision of U. S. Government	4,322,862
Federal Reserve Notes.	At least 40% in gold and at least the remainder of 100% in commercial paper. The resources of Federal Reserve Banks. Guarantee by U. S. Government.	Same as National Bank notes	Federal Reserve Banks under supervision of U. S. Government	1,694,336,390
Gold Coin and Bullion.	The value which is in the gold itself	Full	U. S. Government	387,350,220
Silver Dollars.	Indirect exchangeability with gold	Full	U. S. Government	48,796,965

² Prepared from Currency Laws of the United States, and U. S. Treasury Statement of Money in Circulation, December 1, 1927.

NAME	BACKING	LEGAL TENDER POWERS	ISSUING AGENCY	AMOUNT IN CIRCULATION DEC. 1, 1927
Subsidiary Silver (a) half-dollars (b) quarters (c) dimes	Same as silver dollars	Legal tender for sums of \$5.00 or less	U. S. Government	284,953,978
Minor Coins (a) Nickels (b) One-cent pieces	Same as silver dollars	Legal tender for sums of 25 cents or less	U. S. Government	110,000,000
Total				\$4,845,312,583

Federal Reserve Bank notes are issued by Federal Reserve Banks, under the same condition as National Bank notes, except that the amount is not limited by the capital of the Federal Reserve Banks. Both National Bank notes and Federal Reserve Bank notes are obligations of the banks and not of the United States.

The paper money of the United States, however, consists largely of Federal Reserve notes. To obtain these from the United States government a Federal Reserve Bank must deposit with the United States collateral equal in amount to the notes requested. This collateral may be gold or short-time paper or partly one and partly the other. Any gold deposited as collateral with the government counts as part of the 40-per-cent gold reserve that each Federal Reserve Bank is required to keep against all its Federal Reserve notes in circulation. Behind Federal Reserve notes, then, is at least a 40-per-cent gold reserve plus at least enough short-time paper, endorsed by various responsible parties, to make up 100 per cent of the notes issued. In addition to this security there is the government guarantee of the notes.

How does it happen that all these various forms of money circulate at their face value? Why is anyone willing to swap a perfectly good twenty-dollar gold piece that could be melted and made into ornaments, for a dirty piece of paper? The answer is that all the moneys are kept at a par with gold, which is our "standard" of money. The Act of March 14, 1900, decrees that "the dollar consisting of twenty-five and eight-tenths grains of gold nine-tenths fine shall be the standard of value, and all forms of money issued or coined by the United States shall be maintained at a parity of value with this standard and it shall be the duty of the Secretary of the Treasury to maintain such parity." How this parity is maintained is explained in the following article.

THE GOLD STANDARD³

by E. E. Agger

THE essence of the gold standard is that a country's money be kept at an established *parity with gold*. It does not mean that to have a gold standard a country's money must *be* gold. It is possible to have a gold standard without having an ounce of gold in circulation. The important thing is not the substance out of which a money is made but rather the value at which it circulates. Hence if this value be maintained at the established gold parity, a successful gold standard may be said to prevail.

The crux of the problem lies then in the maintenance of the stated relationship between money and gold bullion. It will not suffice for a government to declare that a certain relationship shall obtain and then trust to luck to have it work out in practice. It will not work out automatically. Definite steps have to be taken to insure the maintenance of any declared money value in gold.

There are two aspects to the problem of maintaining the gold standard in any country. First, it is necessary to maintain the established relation between standard money and standard bullion. Second, in view of the different kinds of money making up most modern systems, there is the problem of maintaining parity in value between standard money and the other kinds (subsidiary or token money, credit money, etc.).

The established value relationship between gold bullion and standard money is usually insured by making them interchangeable. Thus, where gold is coined, it is usually said that "freedom of coinage" on the one hand and the "melting pot" on the other will operate to keep bullion and coin equal in value. Where gold is not coined, the free exchange of money for bullion, and the free redemption of money in bullion, will insure the same result.

The maintenance of parity between standard money and the other kinds, as, for example, between gold in the United States on the one hand and silver dollars, "greenbacks," Federal Reserve notes and national bank notes on the other hand, is a matter of regulation of supply, of scope of legal tender power and of possible redemption of all such forms of money in gold. Silver dollars are not specifically redeemable in gold, but they are limited in supply and they are full legal tender. Their value, therefore, is unquestioned.

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It has been noted that machine methods of production require a long interval of time between the purchase of factories and raw materials and the sale of the finished products to consumers. A moment's thought about inventories, hundreds of mechanical processes, lumbering freight trains, cars on sidings, complex terminal facilities, ware-

³ From an article in *The American Bankers' Association Journal*, November, 1925.

houses, and dusty boxes on retailers' shelves may suffice to suggest the time character of the production process and perhaps to raise questions as to how the various parties are able to finance their purchases. Generally they have some funds of their own and borrow the rest. For building factories they are likely to issue securities, borrowing more or less permanently from investors. To meet operating expenses they may borrow for short periods of time, perhaps from commercial banks. These two types of credit are known as "investment" and "commercial" credit.

The long-time character of the contract for repayment is the distinctive feature of investment credit. The borrower may be an individual, corporation, or a government agency. A farmer may use investment credit to increase his acres, hoping that the added acreage will yield him sufficient income above expenses to "pay off the mortgage." A corporation, issuing bonds, may plan the installation of new machinery. Or it may wish to buy the plant, equipment, and "good will" of another concern with a view to decreasing competition. Government use of investment credit may be for the purpose of building schoolhouses and concrete roads, or it may be to blow up millions of people and ravage whole countrysides, as in the world war. The only element characteristic of all investment credit transactions is that it is understood by both borrower and lender that the credit advanced is not to be repaid for a considerable period, usually several years.

Commercial credit contracts, on the other hand, call for repayment within a relatively short period, usually a few months. This type of credit is used primarily to finance manufacturing and marketing. For example, a shoe manufacturer may borrow to pay for materials and labor required to produce shoes which on completion he expects to sell to jobbers. The jobber, in turn, may borrow to buy the shoes and hold them until he can sell to a wholesaler or a retail dealer. The retail dealer may borrow to finance the transfer of the shoes through his hands to the consumer. In each case the expectation is that the sale of the shoes will provide funds within a short time to repay loans contracted to manufacture or market them. This rapid liquidation of loans by the sale of products on their way through the channels of trade provides the distinctive basis of commercial credit, generally handled through the medium of promissory notes and bills of exchange of various types.

In actual business practice the distinction between investment and commercial credit frequently becomes blurred. Funds obtained as short-time commercial loans often become invested in plant and equipment, and, so far as repayment is concerned, take on the characteristics of investment loans. Likewise, commercial credit needs are often

supplied by the use of funds borrowed for long-time investment. The distinction between these two types of credit is at times, however, of very great importance, a fact which will become apparent subsequently.

In the discussion of commercial credit, to which the balance of this chapter is devoted, the first subject of inquiry is the occasion for the extensive use of that type of credit.

COMMERCIAL CREDIT AS AN AID TO PRODUCTION ⁴

by Harold G. Moulton

IT HAS become almost a trite saying that credit is the very lifeblood of commerce and that without its wonderful assistance the enormous business of the modern world would be quite impossible. The precise manner in which this credit structure is built up, however, with its intricate and complicated interrelations, is not usually clearly understood. It is the purpose of the following analysis to trace these intricate relations, and show the complicated interdependences in the fabric of commercial credit.

Commerce relates to the movement of goods from the hands of those who perform the first operation in production to their final resting-place with the ultimate consumers. Commercial credit connects itself, therefore, with the various purchases and sales that are made in the slow process of marketing commodities. The nature and place of credit in the marketing process may perhaps best be made clear by assuming first a society that does business on a cash basis only.

To illustrate the process let us begin with some raw materials in the form of iron ore and coal which are to be manufactured into farm machinery for sale to farmers. These materials normally pass through the hands of the following classes of business men: (1) the manufacturer of machinery; (2) the wholesale dealer; (3) the retail merchant from whom they are purchased by the farmer. In the absence of credit, the producer of raw materials would have to possess enough capital to defray the cost of producing these materials. He would sell them for cash to the manufacturer, who pays for them with ready money. In turn, the manufacturer, after having converted the materials into finished machines, sells them in a new form to the wholesale dealer, who pays for them out of funds accumulated for the purpose. The wholesaler next passes them on to the retailer for cash; and the retailer disposes of them to the farmer for cash. In each case cash accumulated and in hand ready for payment is the significant feature. We have thus far, however, but half completed the commercial circle.

The farmer does not purchase the machinery as an end in itself. With it he produces crops for sale. He sells his annual produce to a local

⁴ From an unpublished article. Reprinted with the writer's permission.

dealer for cash; the local dealer sells these products to the commission merchant for cash; the commission merchant passes them on for cash to a retail store; and the storekeeper sells them for cash to his customers, who happen to be, let us assume, the laborers in the mines of iron and coal who were the original producers of the raw materials that went to the making of farm machinery. Thus we have the complete round of production.

In the foregoing analysis we have assumed each sale to be for cash; no one waits for his payments, and all keep the slate clear as they go. Let us now introduce credit into the system as outlined above.

It is evident that the farmer who buys the farm machinery is the ultimate demander of the raw materials purchased by the manufacturer, and of course of the finished machines handled by the wholesaler and retailer respectively. In final analysis the farmer's cash pays for the labor of the workers in the mines of iron and coal. Or, traveling around the circuit in the opposite direction, it is the laborer's cash that really pays for crops of the farmer that have been produced by the farm machinery. Without credit, however, it is impossible for the precise cash paid by the farmer to the retailer to be used by the latter in paying the wholesaler and so on up to the producer of the raw materials. In introducing credit into this system it will be necessary to assume for the moment a situation that does not represent the actual state of affairs. The corrective will be given in the paragraph following.

Let us assume that the producer of raw materials possesses enough to produce \$10,000 worth of raw materials, paying his laborers in advance. Now let us assume he sells these materials to the manufacturer on twelve months' time, that is, he agrees to wait twelve months for his pay. The manufacturer in the course of three months converts these raw materials into finished machinery and sells the machines on nine months' time to the wholesaler. In a month the wholesaler disposes of the machinery, letting the retailer have eight months in which to pay. In another month the retailer sells the machines to a farmer, agreeing to wait seven months. Four months later the farmer sells his crops on three months' time to a local dealer, who sells them in a month to a commission merchant on two months' time; the commission merchant in turn selling on one months' time to a retail store; and the retailer disposes of them within a month to the laborers who work in the mines, for cash received by them for producing raw materials. Cash would thus be paid to the retailer of farm produce just twelve months from the date of the first sale of the raw materials; and if this cash should be passed on promptly through the hands of the commission merchant, local dealer, farmer, retailer, wholesaler and manufacturer to the original producer, it can liquidate all the obligations as per schedule.

In actual practice, however, twelve months would be a long time for the producer to wait for his payment. Similarly, the periods of nine, eight and seven months would be too long for the others to wait, for further

production would be more or less halted meanwhile. In practice, therefore, credit extensions are for much shorter periods, usually from one to four months, whether it be the producer of raw materials, the manufacturer, or the middlemen. How is this made possible?

The manufacturer, for instance, may give his note to the producer for three months, and pay as soon as he sells to the wholesaler. The question now is, where does the wholesaler get the funds with which to pay; does he not have to wait until the retailer has disposed of the goods? This is where the banks come to the assistance of commerce. The wholesaler sells to the retailer on time, but instead of delaying his payment to the manufacturer, he procures a loan from his bank, giving as security therefor the notes received from the retailer. With this loan the wholesaler may pay the manufacturer at once. The loan from the bank is repaid when the retailer settles with the wholesaler. The bank therefore undertakes the waiting instead of the dealer.

In the foregoing illustration it was the wholesaler who procured the loan from the bank. It may in fact, however, be any one or several in the chain of buyers and sellers. The manufacturer, for instance, instead of asking the wholesaler to pay cash could accept a promissory note, and then sell this note to a bank for cash, that is, have it discounted. Or the retailer might borrow from a bank and pay cash to the wholesaler. Similarly, on the other side of the circle, the commission merchant may pay cash to the local dealer, borrowing from a bank for the purpose; and the retailer of the foodstuffs may sell to his customers on credit, and borrow from a bank while waiting for his returns. It is quite immaterial which party procures the assistance of the banks; though in practice it usually becomes the custom for only certain ones in the chain to do so. In this country it is usually the manufacturers and the commission merchants who pay cash.

The commercial structure which we have thus outlined is seen to be very closely interrelated; and it is because of this interdependence of factors that a "credit breakdown" has such far-reaching consequences. The credit circle cannot be disrupted at any point without more or less seriously disrupting the entire system. Suppose, for instance, that a long drouth or heavy rains ruin the agricultural produce and render it impossible for the farmer to pay the retailer as promised. This affects the retailer's ability to pay the wholesaler, and in turn the wholesaler's ability to pay the manufacturer, or his bank, and so on around the entire circle. Or suppose a strike in the manufacturing establishment should prevent the manufacturer from filling his selling orders. It becomes impossible for him to pay the producer on time; and the latter in turn becomes unable to meet his obligations as they become due. The halting of the manufacturing process may compel the producer to restrict his output of raw materials, and hence discharge laborers. This affects the sales of the retailer of the farm produce, and hence his ability to pay the com-

mission merchant, and so on around the circle. Numerous other examples of this sort might obviously be given.

. . .

The foregoing analysis shows how the wholesaler or retailer frequently has occasion to borrow for short periods, but it does not explain how it happens that his commercial bank is able to provide these loans. A partial explanation may be found in the following interpretation of the origin of commercial banking.

THE GOLDSMITH'S SECRET—A KEY TO BANKING⁵

by Harold G. Moulton

MODERN commercial banking began in England about the middle of the seventeenth century. At that time the goldsmith was a man who had in his possession quantities of gold. He used the precious metal for making all kinds of works of art. Plate for the table was wrought out by hand in most elaborate patterns. Jewelry was made for those who had wealth and could protect it. The homes of princes and rich merchants were decorated with the products of the goldsmith shops. In time, however, the goldsmith changed his profession from that of a worker in gold to that of a dealer in gold and other money. The business of banking originated with him.

In order to understand the way in which the goldsmith became a banker, let us imagine ourselves living in the times in which he lived. We must remember that there were no banks and few places of safety where gold could be stored. Suppose I am a goldsmith and have a strong box in which to keep my supply of gold. Mr. Smith, a merchant who lives next door, knows this fact and says to me one day: "I wish you would let me put my surplus cash in your safe until such time as I want to use it again. My strong box is not a very good one and I can scarcely sleep at night for fear that my money will be stolen." "Very well," I reply, "you may put your money in my safe and I will give you a receipt for the amount and agree to return your money to you whenever you desire it. Of course, I shall have to charge you a small fee for my trouble and risk." Mr. Smith agrees to the plan and places \$1,000 in my safe.

A few weeks later Smith wishes to pay Jones, another merchant near by, exactly \$1,000. To make the payment Smith would have to withdraw the \$1,000 from my safe and carry it down the street to Jones' place of business. Smith remarks to Jones that he is afraid he may be robbed on the way, and even if he isn't, some thief is likely to learn that a considerable sum of money has exchanged hands and the receiver will need to guard it carefully. This gives Jones an idea and he replies, "I wonder if the goldsmith would not be willing to keep this money for

⁵ Adapted from *Lessons in Community and National Life*, edited by C. H. Judd and L. C. Marshall, U. S. Department of the Interior, 1918.

me as well as for you. Let us go and find out." They come to me, and after listening to Jones' request I ask Smith for his receipt. Smith hands it to me and I tear it up. Then I write a receipt for the same amount and give it to Jones. By this simple method Smith has paid his debt to Jones and the money has remained all the while in my safe.

I soon improve on the method of transferring claims to money in my safe. The next time I give Smith a receipt for \$1,000, which he deposits, I say to him: "Any time you wish to transfer this \$1,000 to some one else all you need to do is to send that man to me with a written order for \$1,000, whereupon I will deduct from your account \$1,000 and pay him the cash or give him a receipt for the amount, whichever he prefers." A few days later Mr. Brown comes to me with an order from Smith requesting me to pay \$500. I deduct \$500 from Smith's account, leaving him a net credit of \$500. Brown says he would like to leave his \$500 with me, so I give him a receipt for that amount with a right to transfer it by means of a written order to anyone else. A month later Mr. Dixon comes to me with an order drawn by Brown asking me to pay him \$300. I deduct \$300 from Brown's account and open an account with Dixon for \$300.

The habit is rapidly growing of passing orders or checks from hand to hand instead of withdrawing the actual cash each time. In the course of a few years so many people have left their funds with me, and there is so much bookkeeping involved in keeping all the accounts straight, that I decide to give up my business as a goldsmith and devote all my time to taking care of this new business that has developed. I become a banker, pure and simple.

By this time I have \$100,000 in my safe. Every day many people present orders or checks drawn by the different depositors against their respective accounts. To my surprise I learn that about three times out of four the man who presents the order does not withdraw cash but instead asks for a credit account with me against which he can draw checks when he wishes to make payments. Everybody remarks how much more convenient and how much less risky it is when one does not have to transfer the actual money.

I ponder over the fact that only once in four times does anyone ask for cash. I have \$100,000 with which to pay \$100,000 in claims against me, but I am never called upon to pay more than \$25,000 at one time. Why not, therefore, loan \$75,000 at interest and increase my profits? I try this and find that my ability to pay \$100,000 is not impaired so long as I make short-time loans of a kind that are sure to be paid promptly when they fall due. So long as only one dollar in four is called for in cash, a 25-per-cent reserve of specie is all that is necessary.

Finally, I get a new idea. Instead of loaning \$75,000 cash, why not plan to keep the whole \$100,000 as a reserve and carry on an interest-collecting business of my own? Twenty-five thousand dollars is to the \$100,000 as \$100,000 is to \$400,000. If with a reserve of \$25,000 I can carry \$100,000 in claims for cash against me, why could I not with

a reserve of \$100,000 create claims against me equal to \$400,000? I try out this idea. I loan \$300,000 to business men. I give them credit accounts against me, and for the sake of convenience they write checks against these accounts rather than withdraw the actual money when they wish to make payments. I find that the people who receive the checks are no more desirous of taking away cash than were the people with whom I dealt before. Now, as formerly, one-fourth of the checks are presented for cash and three-fourths are deposited with me as credit accounts. Thus I carry a total of \$400,000 and need only \$100,000 actual cash with which to pay. Since most people prefer the credit account I am able to meet all claims with my cash reserve of 25 per cent of my outstanding accounts.

Commercial banks today make loans to business men amounting to billions of dollars annually. These loans are mainly for short periods, and business men use them largely for working capital rather than for plants and equipment. The modern business manager not only does not own all of his plant and equipment, but he does not even own all of the capital required to operate a factory or run a store; he borrows funds on short time with which to buy raw materials for manufacture and stocks of merchandise for sale. It is the function of the commercial bank to furnish this working capital.

In the loaning of funds the banker has to exercise a great deal of judgment. If he loans to business men who are inefficient or dishonest, or engaged in lines of business which are speculative in their nature, he may find that his loans are not repaid at the date of maturity. There may be heavy losses involved, which reduce the banker's profits. Even slow payments are looked upon with disfavor by the banker because his ability to expand his own obligations as described above depends largely upon the certainty and promptness with which his debtors pay him.

The banker therefore makes a careful study both of the borrower and of his business before a loan is granted. Elaborate credit departments have been developed for the purpose of this study, and the banks succeed, in fact, in discovering with a good deal of certainty what business men and what businesses are likely to prove prosperous and are therefore entitled to financial aid.

There is one further function or service of the commercial bank which must be mentioned here. We have been speaking of checks or orders drawn against money deposited in a commercial bank. These checks are used to pay debts; they pass from hand to hand in exchanging goods, thus serving in lieu of the actual money which is in the bank. Besides these checks, promises to pay money are also issued in the form of bank notes. These pass as money everywhere in the channels of trade, and most people never think of them as being in any way different from Government money. Checks, however, pass from hand to hand only by indorsement.

So convenient is this check currency that in the modern business world it has largely displaced money as a means of paying debts. In large

business transactions cash seldom changes hands nowadays. Even in the case of small retail purchases and sales the check is more and more taking the place of money.

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The business descendants of the goldsmith are the commercial bankers. They stand ready to advance funds to borrowers who offer good security and are willing to pay the discount charged. Some writers argue that in making such advances commercial banks are "creating credit." It is said that giving the borrower the right to draw checks up to the amount of the loan, minus discount, is in reality increasing the amount of credit available. Other writers say that the bank merely guarantees the credit of the individual. The banker agrees to pay on demand and the borrower agrees to pay thirty, sixty, or ninety days after date. Aside from the time factor, the chief difference between these two promises is that the bank's promise is regarded more highly in the business community than is that of the borrower. An explanation of banking as a business of guaranteeing credit follows.

WHAT THE BANK DOES ⁶

by H. Parker Willis

WHAT is banking? Reduced to its lowest terms, the essential function of banking is that of guaranteeing the credit of individuals. The basic banking transaction may be described as follows:

A has purchased goods from B and has given B a document or "note," in which he promises to pay B the sum of \$1,000 with interest at the end of ninety days. We may assume that his payment is absolutely certain, and that there is no risk of loss. B, however, wishes to get means of payment immediately in order to meet his own obligations. In order to do this, he resorts to someone who has immediate funds and asks him to extend "accommodation." The banker takes the note from B, and B gets in exchange the right to draw upon the bank at sight up to an amount agreed upon. This process is called discount, and the difference between the amount that B can draw at sight and the face of the note is the discount for this transaction. The banker seldom, if ever, enters into such a transaction without having B's endorsement or guarantee on the note, but it is plain that what has been done is to substitute the credit of the bank for the credit of A and B. The banker counts upon not being asked to pay money for the drafts drawn on him by B. That is to say, he expects that not everyone to whom B gives a draft or check on him will want to cash it, or, if such cashing should be demanded, that other checks and drafts will come into his possession sufficient to offset those which he is thus asked to make good.

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⁶ Adapted from *The Federal Reserve*, Doubleday Page and Co., pages 7-9.

In the course of the day's business a bank receives various pieces of paper which show that people are obligated to make payments to the bank either immediately or at some future date. A customer may deposit a check which can be collected at once or he may sign a promissory note agreeing to pay the bank after sixty days. Or he may present some other sort of credit instrument. A few of the various forms are described in the following article.

SOME COMMERCIAL CREDIT INSTRUMENTS

LET us suppose that McIver, a wholesaler in Springfield, ships \$10,000 worth of hardware to Hudson, a retailer in Cheshire. How can Hudson pay for this? He is not likely to have the money ready at hand in his cash register. Probably he only keeps enough there to be able to make change for his customers. If he has a large balance at the bank he can draw out cash to pay McIver if he wishes, but he is much more likely to send a check. In writing this he simply orders the Bank of Cheshire to pay \$10,000 to McIver. This check is a draft or bill of exchange, payable on demand. Of course drafts may be drawn on individuals as well as on banks and may be payable at some future date. McIver takes the check, endorses it and deposits it with the First National Bank of Springfield. The bank credits McIver's account with the \$10,000, subject to final payment of the check. Hudson could also make immediate payment for the hardware by writing a promissory note payable on demand. A promissory note is simply a promise to pay a certain sum of money to someone at some specified date or on demand.

Hudson may prefer to delay payment until he has sold some of the chisels and jackknives purchased. If he is willing to agree to pay McIver at the end of sixty days, he may give McIver evidence of his good intentions by "accepting" a time draft drawn against him. Suppose McIver writes out an order directing Hudson to pay \$10,000 to the order of "myself" sixty days after date. McIver then sends this order to Hudson either directly or through the First National Bank of Springfield and the Bank of Cheshire. Hudson is expected to write the word "accepted" across the face of the order and then to sign his name on the proper line. By doing so he agrees to pay the \$10,000 sixty days later. Such a draft or bill of exchange is known as a "trade acceptance." Ordinarily the First National Bank of Springfield would be glad to make McIver a loan on the strength of this paper—which, incidentally, is "double-name" because signed by McIver and Hudson both—and that is one of the reasons why McIver would rather have such an agreement than to carry his customer on "open book account." Sometimes, however, when the bank is not sure of Hudson's good name it would prefer to have Hudson's bank "accept" the paper. In that event it would be necessary for Hudson to make arrangements with his bank whereby the bill or draft would be

drawn on the Bank of Cheshire and accepted by it for his account. When accepted, such a bill of exchange is known as a "bank acceptance."

Another method by which Hudson may satisfy McIver is to write out and send to him a promissory note, making a promise to pay him the \$10,000 sixty days from date. This McIver may hold till maturity or discount at his bank in Springfield at once.

Reviewing the situation, we see that Hudson may pay cash or use any one of several commercial credit instruments. But in such transactions cash seldom changes hands. If Hudson has funds available to pay at once he may send a check or other bill of exchange payable on demand, or he may make out a promissory note, also, payable on demand. If he wishes to defer actual payment he may "accept" a bill of exchange drawn by McIver or he may have his bank do this, the resulting instruments being known as trade and bank acceptances. Or, if he prefers, he may write a promissory note payable at some later date. If none of these methods of payment is satisfactory he could find others. McIver might be willing simply to charge him for the chisels and ask for no written promises of any sort. Of course in all cases terms and manner of payment must be mutually agreed upon by both parties to the trade.

* * *

Every time the bank receives a deposit from a customer, the financial position of the bank is changed. When cash is deposited the bank has in its till more cash than before, and at the same time is obligated to pay more to the depositor whenever he demands it. If the depositor gets his new credits by discounting his promissory note payable in thirty days, then the bank has in its vaults a piece of paper on which it cannot collect for a month, and on its books an obligation to pay the same amount, minus the discount, whenever the depositor wishes it. Each business day the bank makes many loans, receives many deposits and carries on numerous transactions with other banks. Constantly its resources and liabilities are changing. But safety requires that the bank should always be in a position to meet the demands of its depositors; it must maintain an adequate reserve against its deposits. In order to do this, the bank must always be able to tell just what its deposits are, and what its reserves total. Partly for this reason banks figure out their financial condition at the end of each business day, setting down the amounts of their various assets and of the different obligations to others. Such a statement is known as the balance sheet. Firms conducting almost any sort of business on a large scale find occasion to make up balance sheets showing their condition, but usually this is done only at long intervals, perhaps of six or twelve months.

The following article describes the balance sheet, making some special reference to the items which appear in a bank balance sheet.

Of course a complete study of the financial standing of any firm would include reference to the "income statement" showing facts about gross income, costs, net income, *et cetera*. It may also be noted in passing that the accuracy of data appearing in balance sheets and income statements is not always beyond question.

THE BALANCE SHEET

MR. JOHN JOHNSON, the owner of a retail grocery store, wishes to find out the financial condition of his business at the end of the year so that he can judge the results of his past endeavors and plan for the future. His first job is to list all the property used in the conduct of his business. The cash on hand amounts to \$300. The building he estimates to be worth \$2000 and the land \$1400. The showcases and furniture he figures at \$700. It takes him longer to find how many dollars' worth of tomato soup, rolled oats and crackers he has on hand. He finally puts down \$2,150. His delivery truck he considers worth \$350 though he is not certain that he could sell it for that. With the help of his wife he is able to discover after a time how much his customers owe him. Some of these accounts have been on the books for two years, and Mr. Johnson is quite sure that he will never be paid a cent on some of them. He makes an allowance of 5 per cent for bad debts and sets the value of his receivables at \$2,500. He also puts down the fact that he holds a note for \$400 made out to him by a customer. Altogether, his assets total \$9,800.

Mr. Johnson realizes that there are other items which offset these assets so that he does not own outright a business worth \$9,800. Unfortunately the building is mortgaged for \$1,100. He is not obliged to pay this immediately, but it is none the less a debt. Furthermore, he owes considerable sums to wholesalers. He has made out notes to the extent of \$1,800 and his accounts payable total \$1,200. All of these claims upon the assets of the business must be added together and the total subtracted from the total of assets in order to find out the net worth of the business, the extent of Mr. Johnson's "proprietorship." The general custom is to include "proprietorship" under "liabilities" as a claim by the owners on the amount by which the assets exceed the claims of outsiders. The balance sheet below indicates the financial condition of Mr. Johnson's business as of December 31, 1920.

Much of modern business is conducted by large-scale enterprises which require the investment of more money than any one individual can ordinarily afford to invest in a single enterprise. In view of this fact, it is customary for the proprietorship of manufacturing enterprises and many other concerns to be divided among many people. Sometimes partnerships are formed, but more often the business is incorporated, and shares of stock indicating ownership of the enterprise are issued. On the balance sheet of a corporation, net worth or proprietorship is indicated by capital stock and surplus, generally set down as separate items.

J. JOHNSON

Balance Sheet, December 31, 1920

ASSETS		LIABILITIES	
Building	\$2,000.00	Mortgage on building	\$1,100.00
Land	1,400.00	Notes payable	1,800.00
Office equipment	700.00	Accounts payable	1,200.00
Delivery equipment	350.00	J. Johnson, proprietor	5,700.00
Cash	300.00		
Notes receivable	400.00		
Accounts receivable	2,500.00		
Merchandise inventory	2,150.00		
Total assets	\$9,800.00	Total liabilities	\$9,800.00

As noted before, the net worth is the excess of assets over the claims of those outside the business. The surplus is the difference between the net worth and the figure at which the stock outstanding is carried. It hardly need be stated that surplus appears on the liability side of the balance sheet, showing, as it does, claims against the assets of the business by its owner. The balance sheet of a corporation carrying on Mr. Johnson's business would appear much the same as the one given above except for the fact that instead of "J. Johnson, Proprietor, \$5,700" might appear "Common Stock, \$4,000" and "Surplus, \$1,700." Of course, in large corporations all sorts of securities are issued which indicate ownership of one sort or another.

The names and relative importance of different items on the balance sheet vary from one firm to another, depending in large measure on the character of business conducted. A company operating a chain of moving-picture houses does not own the same sort of things that a meat-packing company does. Banks do not list "merchandise" among their assets as a grocer would. Nevertheless, the same notions underlie the construction of a bank balance sheet. On the left are assets—generally called "resources" in bank statements—on the right, liabilities, including the claims of stockholders against the assets of the company. A con-

STATEMENT OF CONDITIONS

OF THE FIRST NATIONAL BANK OF OZ, N. Y.

AT THE CLOSE OF BUSINESS

DECEMBER 31, 1927

RESOURCES		LIABILITIES	
Loans and discounts	\$ 8,500,000.00	Capital stock	\$ 750,000.00
Investments in U. S. bonds and other securities	3,600,000.00	Surplus	650,000.00
Banking house, Furniture and Fixtures	417,000.00	Undivided profits	320,000.00
Cash in vault	180,000.00	Deposits	11,600,000.00
Reserve with Federal Reserve Bank of New York	903,000.00	Notes and bills re-discounted	60,000.00
		National bank notes outstanding	220,000.00
	\$13,600,000.00	Total	\$13,600,000.00

densed statement, listing some of the more important items, will indicate the character of information which the balance sheet furnishes bankers and bank examiners.

Loans and discounts—promises to pay made out in various forms and backed by collateral of all sorts—are left in the safe and constitute by far the largest asset. The chief business of commercial banks is to lend money at interest on short-time loans. But at some times when they have idle funds they invest these in certain long-term securities of high grade, such as government bonds. Such investments have become more important in recent years. They can be sold readily if the bank needs more cash or larger reserves. Cash in the vault is used only to meet the demands of customers and does not count as reserve for members of the Federal Reserve system. They must keep their reserves with the Federal Reserve bank of their district.

The chief claims upon the bank are those of its depositors. Most deposits are payable on demand. They may arise out of loans to customers or out of deposits of currency and checks by customers. Holders of National bank notes also have claims against the assets of the bank, for these notes are promises of the bank to pay to bearer on demand.

In order to replenish its reserve or to obtain cash from the Federal Reserve bank, a member bank often sends in commercial paper to be “rediscounted.” These notes are included as loans and discounts owned by the member bank, but also on the liability side as “rediscounts,” since the member bank is obligated to pay the Federal Reserve bank when these notes fall due.

Finally, there are claims of the owners. They have a right to all that is left after all other obligations have been met. These claims are listed as capital stock, surplus, and undivided profits.

These are but a few of the more important assets and obligations of the company. Certain funds are due to other bankers and other amounts are due from bankers, and there are still other items which a detailed analysis of the bank balance sheet would properly include.

. . .

The activities which banks have developed to meet their various problems are many. One is, as we have just seen, the practice of keeping very up-to-date records of their financial standing, their reserve position, etc. Another is the operation of extensive credit departments which investigate the standing of prospective borrowers. Still another is the operation of “clearing houses” established to simplify interbank relationships. What these clearing houses do is described in the following article.

THE CLEARING HOUSE IDEA ⁷

FROM the time when cash began to be superseded by checks, drafts and other paper in the transaction of business, it has been natural and neces-

⁷ Adapted from the *Chicago Journal of Commerce*, October 24, 1921.

sary that the banks of a community should match the debits and credits with one another daily and make the proper settlement.

In London, in the seventeenth century, it was the custom of the banks to use "walk clerks" or "collectors," as we would call them, to go to each of the other banks in turn and collect the actual cash to cover checks, drafts and other credits which had accumulated in the previous day's business.

About 1670, two of these walk clerks chanced to meet in a coffee house where each had gone for a little refreshment. It appears that messengers of those days were not more eager for work than in our own time, for it seemed a clever idea to these youths to effect their exchange right then and there, thus eliminating the long walk and the attendant fatigue. Also permitting more time for refreshments.

Their banks did not discover the subterfuge and so the simple method was continued. Other clerks learned of the time and labor saving scheme of their colleagues, and before long the coffee house had become the first clearing house. Many thousands of pounds changed hands daily, without authority or sanction of the banks, who believed their clerks to be following their tedious rounds instead of disposing of the business in hand in a fraction of the former time.

When the practice was discovered, there was division of opinion among the bankers. Some ordered it stopped forthwith. Others, perceiving the germ of merit in the idea, held out for its development. The latter prevailed and a room was engaged for the use of the boys. Later, a set of clearing rules was devised and a manager placed in charge of the entire activity. From this informal beginning evolved the London Clearing House, the largest in the world.

Time and the development of American banking brought the system to this country. New York established its Clearing House in 1853, followed by Boston, Philadelphia, Pittsburgh and Chicago. Now, every city of size or commercial importance has its Clearing House. All follow the same elementary idea of convenience and economy of time and labor, though local conditions make special rules advisable.

The Chicago Clearing House Association was organized April 6, 1865. In the minutes of the meeting held June 8, 1865, is found the authority "to purchase an iron or tin box in which to keep securities deposited as collateral for balance." One of the first "settlement clerks," now a vice-president of one of Chicago's oldest banking institutions, smiles in reminiscence of the average daily clearing of *between two and three million dollars*, except after the first of the month, when the Board of Trade's monthly settlements ran the clearings up to the stupendous figure of *between four and five millions*. Today the daily clearings range between *eighty and one hundred millions*. A year ago, when trade was more brisk, the average was regularly one hundred millions or more.

As an illustration of the economic saving achieved by the Clearing House Association, it is interesting to observe that its vast aggregate of business is accomplished by the use of only about 7 per cent in actual

money transferred, the remainder being cancelled by opposing debits and credits.

. . .

The commercial banker who accepts from the public for safekeeping and also provides the credit necessary to carry on commerce, obviously occupies a very strategic position in the community. If the loans he makes are not repaid, depositors who have intrusted their funds with him may find themselves financially ruined. If he makes loans which are used for speculative purposes, rather than for financing the production of goods, serious tie-ups of the economic system may result. For these and many other reasons, to be more fully treated in subsequent chapters, the development of commercial banking in the United States has been accompanied by the growth of a system of governmental control more comprehensive than that exercised over other types of business enterprise. It is with certain phases of the development of commercial banking and the attendant system of governmental supervision that the remainder of this chapter will be primarily concerned.

In considering the development of commercial banking in the United States, it should be noted that there is no such thing as a standard pattern to which all "commercial banks" conform. They differ not only in the nature of the business conducted but in the type of supervision over them. For example, in addition to making short-term loans to finance manufacturing and marketing, the operations with which commercial banking is generally associated, commercial banks generally have savings departments, and make long-term investment loans. Savings banks or savings departments of "commercial banks" are able to make such loans because their depositors are primarily investors. The savings bank pays these depositors interest for the use of their funds, and the depositors agree, in turn, to give the bank notice of thirty days or more if called upon to do so, before withdrawing their funds. Although a savings bank is engaged in a type of business which relates as much to investment as to commercial credit, it is generally classed as part of the commercial banking system. Likewise, trust companies or trust departments of commercial banks, engaged in activities such as the administration of estates, are commonly classed as part of the commercial banking system, although they may not be directly engaged in handling commercial credit or deposits payable on demand. Broadly speaking, commercial banks are those which agree to pay their depositors on demand, and which are primarily engaged in making short-term commercial loans. As the commercial banking system has actually developed, however, it

includes many banking activities which cannot be brought within this definition.

Commercial banks also differ markedly in the type of government regulation to which they are subjected. The most important distinction of this type is that between state and national banks. Of approximately 27,000 commercial banks in the United States, about 8,000, or less than a third, are national banks, chartered by the federal government and subject to federal control. There are approximately 19,000 state banks independent of direct federal control, and operating under the banking laws of the states by which they are chartered. The following discussion of banking development in the United States is focused upon the national banking system, inaugurated in 1863, and the present Federal Reserve system which is predominantly an organization of national banks. Of course, a study of the national banks and the state banks which have chosen to become members of the Federal Reserve system does not cover the entire commercial banking system. State banks not belonging to the Federal Reserve banks are more numerous than the member banks. These state banks, however, have less aggregate resources than member banks of the Federal Reserve system.

THE OLD NATIONAL BANKING SYSTEM ⁸

by John B. Woosley

THE theory of free private enterprise so characteristic of American industry and agriculture in the early history of the nation pervaded likewise the banking organization of the country. It was held that banking, as indeed all other avenues for making a living, should be open to all on free and equal terms, and that, generally speaking, the less supervision exercised by the government over the banks, the better for all concerned. The result of the application of this theory to banking organization was the creation, under state charters, of a large number of state banks subject in their operations only to state law. Naturally enough there was a wide difference in the regulation and supervision of banks in the several states. Some states, as notably Massachusetts and New York, developed reasonably high standards of banking control. Other states permitted "wildcat banking" projects on a large scale.

The difference in banking standards and practice is best illustrated in the note issues of banks. New York and Massachusetts banks, for instance, were very careful in the issue of bank notes. They provided adequate security for their notes, and the banks of issue maintained, upon the whole, abundant reserves for the redemption of the bank notes in coin. The result was that the bank notes of these state banks circulated

⁸ From an unpublished manuscript.

at par. They were worth one hundred cents on the dollar. Individuals holding these notes could pass them freely and easily at their face value.

On the other hand, there were state banks in the South and West which used the note issue privilege so freely that the notes depreciated in value. Many of them were redeemable in gold or silver only at severe discounts. Indeed, in some localities the situation was so bad that notes were placed in circulation when the bank of issue could not be located, the only evidence of its existence being the notes in circulation. The value of the bank note, under such conditions, depended entirely upon the standing of the bank which issued it. Needless to say, such a state of confusion, such a marked difference in the gold value of the bank note, seriously impeded trade and commerce. It is therefore somewhat surprising that the earlier attempts made by the First United States Bank, 1790-1810, and the Second United States Bank, 1816-1836, to establish and maintain a sound bank-note currency should have failed. But the opposition of state banks to the restrictive influence of the United States banks was so great that efforts to recharter these institutions were unsuccessful. Some state banks objected to the policy of being compelled to redeem their notes, and the deplorable situation continued.

The National Bank Act, passed in 1863, was partly an attempt to remedy the serious evil of an unsafe and disorganized bank-note currency, and partly a war measure. The government in financing the Civil War found it necessary to resort to very heavy issues of bonds for which the market was none too good. In order to stimulate and improve the market for these bonds it was provided that each national bank, chartered and supervised by the national government, could be required to purchase government bonds to an amount equal to the capital stock of the bank. The bank could then issue bank notes based on these bonds as security. Two birds would thus be killed with one stone; the banks would provide an excellent market for the bonds and the notes issued by the banks would have the necessary security and safety. As an additional guarantee of the soundness of the notes thus issued, the bank of issue was required to maintain at all times with the Treasury Department at Washington cash equal to five per cent of the bank notes outstanding, thereby insuring continuous redeemability of the notes and likewise preventing their depreciation. Such were the leading provisions of the National Bank Act.

The national banking system in many ways was a marked improvement over the previous system of unrestricted state banking. In the first place, a safe and sound bank-note currency of national scope which has never depreciated in value was provided for by the system. To a considerable degree, too, the market for certain issues of government bonds was created and maintained by the banks which desired these bonds as security for their bank notes. And in a third particular the national banking system proved a boon to the country. The banking standards established by national banking legislation were considerably higher than those set by most of the states of the Union. While any one was free to organize a national bank, he had first to meet the standards as established

by the Act. Higher capital requirements, more rigid reserve limits, a compulsory surplus of certain dimensions, and carefully restricted note issues all combined to give national banks a standing and position which state banks in many states have never attained. There have been, consequently, a smaller proportionate number of failures among national banks, and a much higher degree of safety assured the depositor, than among state institutions. The national banking system marked the close of the "dark age" of American banking and ushered in an era of improved banking methods. Essentially democratic in design and structure, it had many of the virtues and some of the defects of such a banking organization.

The period following the Civil War was one of unprecedented growth and expansion in the United States. Economic conditions changed much more rapidly than did the banking facilities provided by the National Bank Act and its amendments. In many particulars the country outgrew its banking system in much the same way that a boy outstrips his trousers. So significant were these economic changes and the consequent demands they made on the banking system that the more important deserve noting at this point.

In the first place, agricultural conditions and organization had undergone a startling change. The opening up and development of the West, the construction of transcontinental railroads, the establishment of the factory system, and the growth of cities with their huge industrial population had worked marvellous changes in the life and work of the farmer. Instead of remaining a person who produced largely what he consumed and consumed largely what he produced, the farmer, almost within a generation, became a crop specialist. In one section of the country he was a wheat farmer; in another section, a cotton farmer, and in still a third, he specialized in tobacco culture. Correspondingly, he had to sell his product on the market and, with the funds thus secured from his crop, buy the many goods demanded by himself and his family. And as he became interested more and more in producing goods for the market rather than for his direct use, he sought constantly to increase his income by borrowing funds with which to increase his crop acreage. Thus he became more and more dependent on credit. The effects of this increasing degree of crop specialization on our banking system was most interesting. Notable among them was the marked growth of seasonal variations in the demand for credit which reflected, in large measure, the agricultural operations of the country. These variations in the demand for credit correspondingly affected the volume of bank loans and the interest rate charged on these loans.

Four distinct periods in each year's demand for agricultural credit developed. Beginning in February and lasting until June, the farmers were busy arranging for their spring planting. Fertilizer had to be bought, new machinery purchased, labor hired, and seed secured. To finance these activities the farmer borrowed either directly from banks or from the local merchant who in turn borrowed from the bank. This

increased agricultural demand for credit resulted in a rising interest rate during this period.

Crops planted, there followed from June until August a period in which the demand for credit was lower, and, since everybody whom the farmer had paid with checks had had time to deposit these funds in the banks of the country, the supply of credit was greater and interest rates consequently softened.

The third stage centered around the harvesting period. Beginning with the western wheat crop in August and continuing late in the fall, the farmer was busy gathering his returns of the year. Again labor had to be hired, goods had to be shipped and stored, and, since the farmer had notes to meet, his crops had to be sold. It was necessary for somebody to buy, store, ship and sell this huge American harvest. Again there was a heavy demand on the banks for funds to finance the process. As the farmer harvested and sold his crops, he began, along with the rest of the country, to buy his fall supplies. Fall and Christmas shopping thus stimulated trade and industry and maintained an active demand for credit until after the holiday season. Accordingly, interest rates usually reached their highest peak during this period.

After January the first came another recession in business, and for several weeks there was a sharp decline in the demand for credit. The money market became "easy" and remained so until the next crop-planting season began in February and the cycle was resumed.

Coupled with the agricultural changes in the demand for credit during the several periods of the year were similar industrial and commercial variations in credit needs which were largely the result of the seasonal nature of agricultural operations. The effects of these seasonal variations in credit demand on the money market and the banking system were obvious. Expanding and contracting demand for credit required an elastic supply of credit, that is, a supply of credit which would expand with the increasing demand and would contract with the decreasing demand for credit. If the supply of credit was not elastic, if it could not be increased and decreased to meet these variations in the demand for credit, then the price of credit, namely, the interest rate, would be subject to marked fluctuations. Such was the situation prior to 1914. The supply of credit was inelastic. It could not be easily increased and decreased. Industry which had to borrow in seasons of increased demand for credit had therefore to pay an abnormally high price for funds. Such was the plight of the farmer and closely related producers.

Agricultural expansion and specialization were not the only changes in American economic life which placed new demands on the banking system. Industrial production changed marvellously after the Civil War both in technique and output. Machine industry, specialized and inter-dependent, producing for world markets and subject to many new risks in its efforts to anticipate demand, placed new requirements on the banking system. Pronounced tendencies towards recurrent periods of rising prices and expanding physical output followed by periods of

declining prices and decreased output called, alternately, for an increase and a decrease in the volume of credit. Obviously, increased output demands more funds to finance enlarged volume of goods. Similarly, a given volume of physical production requires increased credit if the prices of these goods increase. If a textile manufacturer, for instance, has to pay twenty cents per pound for cotton, he has to borrow twice as much money to purchase enough cotton to make a roll of sheeting as he would have to borrow if the price of cotton were only ten cents per pound. And since prices are usually in a state of flux, continuously changing, there was a considerable variation in the demand for credit which was due to this fact of price fluctuations. Furthermore, when price increases were accompanied by an increased volume of physical output, as was generally the situation, the double strain on the banking system became terrific. The natural tendency of the business man to produce more goods when prices were rising so increased the demand for credit that frequently the banks were compelled to extend their loans unduly or suffer the loss of good customers. What was most sorely needed in such situations was a supply of credit, properly controlled, which could be wisely expanded to meet the increased demands of business without at the same time over-extending our credit supply and unduly stimulating business expansion.

Conversely, in periods of declining prices, the business man found profits disappearing, and he began, in many cases, to decrease output until prices became more favorable. Thus the industrial demand for credit would decrease. Business no longer required a large volume of credit; the supply of credit should therefore have contracted. Contraction was, however, difficult if not impossible, since banks with surplus funds would pour them into the New York market to be loaned on call, as will be fully explained in another connection.

In summary then, it appears that economic changes in America since the establishment of the national banking system have been so significant and far-reaching that they have made very definite demands on our banking organization. Seasonal variations due largely to agricultural specialization required an elastic supply of credit to meet the changing needs of the farmer throughout the year. Varying volumes of industrial output at varying prices, the so-called cyclical variations in business, likewise called for a varying supply of credit. Thus the need for elasticity in our credit supply in order to meet the severe strains placed on the banking system was great.

Just how well equipped was the national banking system, prior to the Federal Reserve Act, to meet the requirements imposed on it by a changed and changing economic organization? How well did it work under these recurrent credit strains? To answer questions, it is necessary to sketch the major characteristics of the system. It will be recalled that the national banking system was essentially a democratic banking organization. Instead of a highly centralized banking structure directed by one bank, as in England, or a banking system composed of a few large banks

with chains of branches, as in Canada, the American banking organization consisted of thousands of highly competitive, independent banks, each a unit in itself. Each bank was operated for the maximum profit consistent with *individual safety*, and little regard was given to the condition of the *credit organization as a whole*. There was too much competition among banks for business and too little coöperation by them to the end that a safe and sound credit system should be at all times maintained. Furthermore, there was no bank for bankers which could be relied upon in times of stress.

The extent to which each bank looked out for its own profits and disregarded, in many instances, the safety of the credit structure as a whole can best be seen in the operation of the reserve features of the system. The law for purposes of banking reserves divided the country into three groups designated as (1) Central Reserve cities, (2) Reserve cities, and (3) Country areas. New York, Chicago, and St. Louis fell in the first group; cities like Baltimore, Cleveland, Atlanta, etc., some sixty-three in number, came in the second; smaller localities were designated as Country areas. Now banks in Central Reserve cities had to keep a reserve of gold or lawful money amounting to 25 per cent of their deposits, and were required to hold this reserve in their own vaults. Banks in Reserve cities were also compelled to maintain a reserve of 25 per cent of their deposits but they were permitted by the law to deposit one-half of their reserves with banks located in Central Reserve cities. Banks in the "country areas" were required to maintain reserves equal to only 15 per cent of their deposits, and were further allowed to deposit 60 per cent of their reserves with banks in either Central Reserve cities or Reserve cities. Two features of this plan of reserves are significant; the reserve of banks in Central Reserve cities had to consist solely of cash; the reserve of banks in all other sections of the country consisted partly of cash in their own vaults and partly in deposit credits with banks in other cities.

The way in which the reserve provisions worked out in practice was perhaps the most interesting and characteristic feature of the entire banking system. An illustration will reveal what typically happened. Let us assume the existence of the First National Bank located in Raleigh, N. C. which had deposits totalling \$3,000,000. Against these deposits the law required a reserve of 15 per cent, or \$450,000. Of this amount, 40 per cent or \$180,000, must be cash in the vault of the Raleigh bank. The remainder of the reserve might also be kept in the vault of the bank if the management so desired, or it might be deposited with banks in Central Reserve or Reserve cities. Since cash in the vault was idle money and did not produce any income for the bank, the management of the bank carried just as large a proportion of its reserves as the law permitted in the form of deposits with other banks. The reason for this was that the bank in which the funds were deposited paid interest on these deposits, ordinarily at the rate of 2 per cent. The Raleigh bank therefore deposited 60 per cent of the total reserve which it must have

The results of this crude and unscientific system of pyramiding reserves were obvious. In the first place, there was a large portion of reserves which were nothing but deposits with other banks. Second, since the depository banks paid interest on the funds deposited with them, they were compelled to loan out as large a proportion of them as possible in order to cover their interest costs on the deposits and make a profit for themselves. But since the country banks might call for their reserve deposited with banks in Reserve and Central Reserve cities, New York banks, which became the final resting place for most of these redeposited reserves, had to keep the funds loaned out in "liquid" loans. In other words, the loans had to be of such a sort that they could be easily and quickly converted into cash. How could the New York bank keep this portion of its loans "liquid"? The answer which the New York banker made to this problem was to lend the funds out "on call," that is, loan the funds out but make them subject to payment at any moment after the day the loan was made. But who would want such loans? Obviously, only those persons who were buying and selling things for which there was a continuous and ever-ready market, a market in which there were always many buyers and many sellers constantly active. Such a market existed in the New York Stock Exchange and in the commodity exchanges. As a result, the reserve funds deposited in New York banks were used to finance stock and commodity speculation. The call loan market, as it was called, absorbed these funds with ease as speculators continued to bid

up the prices of securities higher and higher when funds poured into the New York market.

It was in this situation that the greatest element of danger existed. The individual bank, working on the assumption that it could call in its call loans whenever the occasion required, placed all its surplus funds on the market in order to keep its cash active. Banks were thus placed in a position of being continuously loaned up; practically all their available funds were loaned out all the time. Reserves were therefore always at the legal minimum and there was no easy way of increasing these reserves. Expanding agricultural and industrial activities with their increasing demand for credit could then be financed only if funds could be "squeezed" from the call loan market where much of our credit was continuously employed. Frequently the squeezing was possible and the farmer, the manufacturer, and the merchant could get the necessary credit to meet the seasonal and cyclical requirements. But they had to pay a price for these funds which would be sufficient to withdraw them from the New York market, and their withdrawal from New York would produce in turn a higher interest rate there, and a decline in the prices of stocks and bonds.

This higher interest rate in the New York market, combined with the heavy exports of agricultural goods which other countries bought from us, frequently had the effect of drawing funds from the London market in sufficient quantities to relieve the seasonal strain to a considerable degree.

At times, however, such a happy combination of circumstances did not develop, and we were not able to turn to London for funds. Good crops abroad coupled with short crops at home curtailed our exports and hence our claims on European gold. Indeed, there were times when we found ourselves exporting gold instead of importing it, despite our dire need for funds. When all these factors combined in a way unfavorable to us, funds became abnormally scarce in New York and the call loan market could not be "squeezed." Such unusual situations tended to make all New York banks call their loans simultaneously. This embarrassed borrowers and further depressed stock and bond prices. Occasionally it would develop that one or more reckless bankers had extended their loans to such a point that they were unable to secure cash in sufficient quantities to meet the demands of their depositors. Immediately when it became known throughout the country that one or two New York banks were insolvent and could not meet the demands for cash made by their depositors, then all the country banks would become panicky and call for their reserves deposited with the New York banks. The result was inevitable. No single bank or banking system can ever stand if all or a large proportion of its depositors demand cash at the same time. Nor could the New York banks meet the combined and simultaneous demands of their country bank depositors in such situations. They soon became drained of cash and had to suspend specie payment. Confidence was

then destroyed, business became paralyzed, contracts for goods were cancelled, trade was interrupted, failures multiplied, and a long and painful period of depression would frequently ensue. In brief, the recurrent American "panic" was on. Students of financial history point to 1893, 1903, and 1907 as illustrations of this condition.

But why, some one suggests, did not the national banks increase their note issues in such periods and thereby meet the increased demands for cash made by frightened country bankers and depositors? If such actions had been possible, perhaps the panics would have been forestalled, nipped in the bud, as it were. But national banks could not increase their note issues for several reasons. In the first place, the national bank notes had to be backed dollar for dollar by government bonds, and in addition there must be maintained at Washington the 5 per cent redemption fund. Therefore it would be necessary for a bank to have \$105 on hand to put \$100 of notes in circulation. To increase the note issues under such conditions would tend to decrease rather than increase the liquid funds of the bank. In the second place, the government bonds which could be used as security for bank notes were limited in number and were already employed, for the most part, as security for notes already issued. There were not enough bonds to increase the note issues to any appreciable amount. It is therefore obvious that no relief could be obtained from the use of the note issue privilege. Note issues as well as deposit currency were inelastic. Thus the banking system had no way to meet the varying credit requirement of commerce and industry. Credit could not be expanded when necessary; it almost never contracted, due to the crude system of pyramiding reserves which poured funds on the call loan market. Indeed, it may fairly be contended that the banking system not only could not prevent these recurrent financial disorders with their resulting losses, but actually contributed to their creation, by throwing such a large portion of credit into the New York market to be used in call loans.

One other question arises in connection with this situation. Why did not the national banks sell some of their best commercial paper in such strains? In other words, why did they not "rediscount" their customers' notes for cash? Again, the answer is clear. There was no bankers' bank, prior to 1914, which stood able and ready to purchase the paper which national banks always had in considerable quantities. With every bank standing alone and trying to make the most profit possible, few banks had idle cash with which to buy paper held by other banks. Even if a few of the banks had been cautious in their lending and had conserved their cash for such a situation, they would be forced to use it to meet the demands of their own panic-stricken depositors. Among other things, our banking system lacked a bankers' bank operated not primarily for profit but rather for the protection and conservation of the credit resources of the country. There was no central bank with large resources which could come to the rescue of the national banks when their reserves

got low or when their needs for cash increased. With some thirty thousand independent banks in the country all too vigorously competing for business and profits, there was urgent need for a great reserve organization which would constitute a reservoir of credit to stabilize and make secure our credit structure.

In summary, then, we may say that the national banking system failed to meet the requirements placed upon it by an expanding economic organization. It did not give us an elastic supply of credit; it pyramided reserves in New York, where the funds were used in speculation and frequently made unavailable for commercial loans; reserves could not be withdrawn from New York in crises when all the interior banks were simultaneously demanding the return of their deposits with New York banks; national bank notes were inelastic and could not be used to 'ore-stall panics; finally, we had no bankers' bank which could come to the aid of the individual bank by rediscounting its paper for cash. Each individual bank, acting for its own profit under rules laid down for all, so conducted its business that at times it helped to bring disaster to all banks and depression to business. Clearly, America had outgrown her banking system.

. . .

It was one thing to be able to demonstrate quite conclusively that the United States had outgrown its commercial banking system by the turn of the century, but quite another to secure adoption of a radically different system. People generally were inclined to be timid about tampering with anything so intimately related to the economic welfare of the entire country as the commercial banking system. Then, too, there was the powerful influence of great banking institutions which, while not entirely satisfied with the prevailing system, were inclined to the attitude of "let well enough alone," for fear of losing definite advantages the old system held for them. Also, representatives of the agricultural sections of the country were generally suspicious of banking "reform," which the experts were agreed should include a firmer control over the loose-jointed national banking system. Representatives of these communities were inclined to envisage such reform as leading to a tightened grip by "Wall Street" on the banking resources of the country.

When the Federal Reserve Act of 1913 was presented to Congress all of these points of view, and many more, were represented. As a result, the completed legislation was necessarily in the nature of a compromise, but a compromise providing for a commercial banking system far different from anything ever tried in this or any other country. The nature of this banking experiment, whose launching is frequently described as one of the political miracles of the early twentieth century, is indicated by the following article.

THE FEDERAL RESERVE SYSTEM

DURING the fifty years of its existence, the old national banking system conclusively demonstrated that it could not be consistently depended upon to provide a supply of credit and currency adequate to the commercial needs of the nation. The Federal Reserve system, inaugurated in 1914, was designed to remedy both the currency and the credit defects of the national banking system, and at the same time meet the political demands of all interested groups.

It was generally agreed that a national currency based upon United States bonds, and consequently controlled by the extent of the government's indebtedness, should be replaced by a currency responsive to commercial needs. Likewise it was generally conceded that the feature of the national banking system which made each bank responsible for its own reserves, with the attendant system of pyramiding reserves, was wasteful and responsible for recurrent periods of credit shortage.

The practical question of remedying the ills of the national banking system was, however, much more difficult than the diagnosis. This was because of the conflicting points of view of various groups concerned with the commercial banking system. If currency reform could have been the single issue presented, there would have been no formidable political conflict. Bankers, students of finance, farmers, and merchants were all agreed that there was necessity of basing the currency on something other than the government debt. Efforts to improve the currency had been under way for several years, and there was a general disposition to carry them through to a satisfactory conclusion if this could be done without disturbing the entire commercial banking structure.

Attempts to remedy the evils of the prevailing system of maintaining bank reserves presented a much more difficult political problem. One difficulty, vigorously phrased by Senator Carter Glass of Virginia, was that "bankers through sheer acquisitiveness, objected to interference with their reserve arrangements, and the politicians, through fear of the bankers, were averse to stirring up enmity among men of power."⁹ Under the prevailing system the bankers had complete control of the commercial banking reserves of the country, to be used in such ways as they deemed profitable. They were willing to admit the system had grave defects, but many of them were not disposed to take the chances of loss of power and profits which a general reform of the reserve system might cause. It was obvious that reform of the reserve system must move in the direction of greater centralization to eliminate the chaotic and disjointed system of individual bank reserves which prevailed. For many of the bankers who prospered under the old national banking system, periodic panics notwithstanding, this raised the specter of a central government bank which might restrict their power, prestige and profits.

⁹ *An Adventure in Constructive Finance*, Doubleday, Page and Co., N. Y., 1927, page 60.

While many of the influential bankers feared centralization of banking reserves as a threat to their power and profits, representatives of western agrarian groups, for whom bank credit is always a burning question, were fearful that increased centralization would give the bankers even greater control over the commercial life of the country. Many of them visualized increased banking reserve concentration as just another step in the process which would lead to complete "Wall Street domination" of the country. As they conceived the situation, the New York financial group had been the most consistent beneficiary of the old national banking system, and consequently what they wanted was less, rather than more, banking centralization.

The Federal Reserve Act, as finally passed by Congress, clearly reflected the conflicting points of view of the various groups which participated in the political struggle over it. It concentrated the commercial banking reserves of the country, but it did so in such a way as to give some measure of comfort both to the bankers who were averse to any major change in the reserve system, and to those who wanted to break the "grip of Wall Street" on the banking system. This feat was accomplished by establishing twelve regional reserve districts and twelve Federal Reserve banks in the cities of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco. The old national banks were required by law to transfer their reserves to these regional reserve banks, and state banks, over which the federal government had no direct control, were permitted to join the new reserve system.

This arrangement involved at once a decentralization and a centralization of the banking system. Under the old national banking system there had been three central reserve cities, New York, Chicago, and St. Louis, one of which, New York, had proved an irresistible magnet for banking funds. The new plan provided for twelve reserve cities, located with reference to the commercial needs of the outlying territory. Those who were desirous of keeping the banking funds of the interior and western states in that territory instead of having them drift to New York were satisfied with this provision.

The centralizing feature of the arrangement arose from the fact that national bank proprietors who had managed their own reserves under the old banking system were to transfer them to a central reserve bank in their district. They were also required to subscribe to an amount of stock in the new central institutions equal to six per cent of the capital and surplus of their banks. Of the amount subscribed, one-half was to be available for launching the new central banks, and the balance was to be subject to a call, which has not yet been made. In return the bankers were made owners of the new central reserve institutions, and were allowed to elect six of the nine directors of each. The other three members of the board of directors of each Federal Reserve bank were to be appointed by a Federal Reserve Board.

The Federal Reserve Board is a body of eight men, six of whom are

appointed to the board by the President of the United States. These, with the Secretary of the Treasury and the Comptroller of Currency as *ex officio* members, exercise a general supervisory power over the twelve Federal Reserve banks.

Concentration of banking reserves in twelve regional banks provided the essential basis for sweeping changes in the currency and credit system of the country. It became possible to abandon the unsatisfactory method of basing the currency upon the security of government bonds, and to provide an equally secure and much more flexible backing of gold and commercial paper. Also the lending power of the national banking was increased and made more responsive to the commercial needs of the country.

All this was accomplished by authorizing these new regional reserve banks to utilize the gold reserves transferred to them as the basis for issuing a new type of currency, and for providing adequate reserves for the member banks of the system. Subject to the general supervision of the Federal Reserve Board, these regional banks were authorized to provide member banks with either currency or deposit credit in exchange for suitable commercial paper, so long as they should have a minimum reserve of forty per cent of gold for the currency issued, and a reserve of thirty-five per cent against the deposits of member banks.

It was provided that a deposit with a Federal Reserve bank should count as legal reserve with a member bank. Of reserves of this character, *i.e.*, deposits in a Federal Reserve bank, member banks were required by law to have varying percentages of their deposit liabilities to their customers. Country banks were required to maintain a reserve of seven per cent against deposits, payable on demand; those in city reserve banks, ten per cent; and those in central reserve city banks (now limited to New York and Chicago), thirteen per cent. A reserve of three per cent against time deposits, *i.e.*, deposits payable after thirty days' notice, was required for all classes of banks.

The new type of currency which the Federal Reserve banks were authorized to give to their members, in exchange for suitable commercial paper, was composed of Federal Reserve notes. These notes have as their backing a minimum of forty per cent of gold, held in the vaults of the reserve bank issuing them, and a balance of short-term promises to pay arising out of commercial transactions.

When the member banks transferred their reserves to the regional reserve banks, they acquired claims against the reserve banks. Each member bank could use its claim either to get Federal Reserve notes or to obtain a deposit claim against the reserve bank, to be counted as reserve against the deposits of the member bank's customers. When additional currency or reserves should be required, a member bank could take commercial paper approved by the reserve authorities and turn it over to its Federal Reserve bank in exchange for additional reserves and currency.

In order to effect this exchange of commercial paper for reserve bank

credit or currency, it was provided that the member banks should pay interest on the advances made to them by the regional reserve banks. This interest rate, generally known as the discount rate, can best be explained by tracing roughly a series of transactions.

Let us assume that the Bank of Podunk, a country bank member of the Federal Reserve system in a college town, having a reserve requirement of seven per cent, has deposits of \$100,000, against which it has a reserve in the form of a \$7,000 deposit with the Federal Reserve bank of its district. Customers come to the bank seeking loans which would increase its deposit liabilities by about \$35,000. Also, because there is to be a vacation exodus from the college town, the bank anticipates an immediate need of \$10,000 more of cash than it has on hand. The cash which the bank keeps on hand to transact its "over the counter" business, estimated for the average bank to be about three per cent of its deposits, is not counted as part of its reserve.

In order to increase its deposits by \$35,000 the bank is under the necessity of increasing its reserve, because it would violate the law in having only \$7,000 as reserve for \$135,000 of deposit claims against it. Also it has immediate need of cash. As a member of the Federal Reserve system, the bank has a means available for increasing both its reserve and its cash, if it has customers' promises to pay which are acceptable to the regional reserve bank, and if the regional reserve bank has a margin above 35 per cent against deposits by member banks and 40 per cent of gold against currency liabilities. In that case, the Bank of Podunk can send to the regional reserve bank suitable commercial paper to the amount, let us say, of \$13,000, with the request that it be exchanged for \$10,000 of Federal Reserve notes, and a reserve bank deposit of \$3,000. The Bank of Podunk rediscounts the promises of its customers to pay with the reserve bank. By complying with certain conditions, the Bank of Podunk can also borrow from the reserve bank on its own note, and on the promises of its customers to pay as security—collateral—for the loan. Either of these procedures can be used to provide the Bank of Podunk with the cash it needs, and also to provide the additional reserve legally required when deposits are increased as a result of additional loans.

Each regional bank fixes an interest charge or discount rate for the loans which it makes to the member bank on the security of the commercial paper.¹⁰ At any one time this reserve bank discount rate is the same for all member banks of any one district, but it does vary from time to time with reference, among other things, to the reserve situation of the regional bank, and the views of the managers of the reserve system on the

¹⁰ When a member bank endorses its customers' promises to pay and turns them over to the reserve bank, the process is that of rediscounting, and the interest rate for loans secured in this way is frequently described as a rediscount rate. When the member bank, as is becoming more frequently the case, borrows directly from the reserve bank and offers as security some of its promises to pay, these promises are pledged rather than rediscounted. In this discussion the term "discount rate" is used to describe the interest rate charged by reserve banks for loan accommodation to their members, regardless of the detailed arrangements for the loan.

desirability of making credit relatively easy or difficult to obtain. If the regional reserve bank is approaching its reserve limits of 35 and 40 per cent, the rate will be high. It may also be relatively high even when reserves are plentiful, because the directors of the reserve system are convinced that too much credit is being used for speculative purposes, rather than in the fabrication and distribution of goods and services.

The designers of the Federal Reserve system planned that control of the discount rate charged by reserve banks for loans to member banks, either in the form of currency or deposit credits, should provide a lever for control of the nation's credit system, which had been lacking under the old national banking system. It was anticipated that the directors of the regional reserve banks, supervised by the Federal Reserve Board, could check too rapid expansion of credit by raising the discount rate, and stimulate the use of credit in times of business depression by lowering the rate. The idea was that by raising and lowering the rate these officials could vary the cost of credit to member banks and hence control the volume of their loans to customers in such a way as to keep the credit system of the country on an even keel, and avoid the crises which had marked the career of the old national banking system. Any change in the discount rate of a regional bank was made subject to the approval of the Federal Reserve Board, a body of public officials appointed by the President and presumably committed to the promotion of the public interest in the operation of the commercial credit system of the nation. As another safeguard against the operation of the reserve banks exclusively for the profit of the member banks owning their stock, it was provided that after a surplus equal to the capital stock had been acquired, any profit realized by these reserve banks over six per cent on their capital stock should be turned over to the U. S. Treasury as a tax for the license to operate.

In order that the credit system of the country might be controlled in the "public interest" as opposed to the sole interest in making banking profits, it was further provided that the regional reserve banks, under the supervision of the Federal Reserve Board, could engage in "open-market" operations. These consist in the purchase and sale in the general or "open" market of such classes of investments as the reserve banks are authorized to handle. Such investments, generally speaking, include short-term commercial obligations and government securities. In dealing in these securities Federal Reserve banks may purchase and sell "at home or abroad, either from or to domestic or foreign banks, firms, corporations or individuals."

The design in back of the authorization of "open-market" operations by Federal Reserve banks was that they could be utilized to exercise control over the credit operations of member banks of the system. The nature of this control can be illustrated as follows: In buying securities in the open market the regional reserve banks usually pay the seller in cash or by check. Funds received by the seller are, in turn, deposited with

a commercial bank because it is provided by law that reserve banks cannot handle deposit accounts for individuals. Consequently, a part of these funds become available to member banks to pay off their borrowings or to build up their balances at the reserve bank. This reduces their dependence upon the reserve banks in carrying on their business. Thus, by buying securities on the open market, the reserve banks can make it easier for member banks to extend credit. Conversely, by selling securities on the open market, the reserve banks can acquire claims for funds which can be presented to member banks. These can be used to withdraw funds from member banks, making it necessary for them to increase their borrowings from the reserve banks.

Control of the discount rate and "open-market" operations were intended to enable the reserve authorities to direct the operation of the credit system in the "public interest." If the member banks were borrowing extensively from the reserve banks, their operations could be controlled to some extent by adjustment of the discount rate. If they were not borrowing because of adequate reserves to carry on their business they might be forced to do so by the sale of securities by the reserve banks. In 1920 when member banks were eagerly borrowing from the reserve banks, and the reserve banks were dangerously close to their legal reserve limits of 35 and 40 per cent, the principal factor in the control of credit by the reserve authorities was the discount rate. Since that time, because of the enormous influx of gold from Europe which has tended to make member banks relatively independent of the reserve banks, the more important credit control available to the reserve authorities has been the ability to buy and sell securities in the open market.

Lest there be a complete credit tie-up if the reserve banks ever reached their reserve limits in issuing currency and credit to member banks, it was provided that the reserve requirements of the central banks could be temporarily suspended in an emergency. Much more important than this provision in assuring steady availability of credit, however, is the fact that the twelve regional reserve banks located in sections of the country that have differing credit requirements can cooperate with each other in tiding over credit emergencies in any particular district. This arrangement has caused the reserve system to be characterized as a system of credit reservoirs in which credit resources are stored up in such a way that they can quickly flow to those communities and individuals having legitimate need for them. For example, the credit required to handle a bumper crop in California might place heavy pressure upon the reserve of the Federal Reserve Bank of San Francisco at a time when the reserve banks of Philadelphia and Boston had surplus reserves. Under such circumstances it would be possible, under the provisions of the Federal Reserve Act, for the San Francisco bank to obtain additional reserves to meet the emergency by exchanging some of the commercial paper received from its customers for surplus gold of the eastern banks. Such regional cooperation, which the Federal Reserve Board has power to

insist upon, was an important factor in the central banking situation of 1920.

The commercial paper handled by the reserve banks is required to meet certain standards relating primarily to the security back of it, the time when the loan which it represents will be paid, and the nature of the transaction upon which the loan is based. Generally speaking, the reserve banks are restricted to the handling of paper representing short-term loans arising from commercial transactions and loans on government bonds. Most of the loans which enter into the operations of the Federal Reserve system are based upon promises to pay arising from the production, sale, or marketing of goods, and falling due within ninety days. There is also provision for rediscounting loans made on agricultural crops, including the raising and marketing of livestock, which are within nine months of falling due. The reserve banks are also authorized to rediscount paper representing loans on government bonds. All of these types of security for Federal Reserve bank loans to member banks, it will be noted, are of such character as to promise relatively prompt reconversion into cash—an essential of a sound system of commercial banking.

From this brief outline of the nature of the Federal Reserve system, it will be seen that it places the commercial credit system of the United States on an entirely different basis from the old national banking system. Under this scheme the currency of the country expands and contracts with reference to the commercial needs of the country instead of being dependent, first upon the extent of the federal government's indebtedness, and then upon the arduous process of issuing national bank notes based upon the security of government bonds. So long as the Federal Reserve banks have a gold reserve of 40 per cent, they can issue Federal Reserve notes to member banks in exchange for suitable commercial paper. When a member bank finds that it has more currency on hand than is required, it is under an incentive to return the currency to the reserve bank, and thus reduce its liabilities and interest payments to this bank. There is also provision for returning to the bank of issue Federal Reserve notes which stray to other districts. Such a currency arrangement is obviously a vast improvement over the cumbersome and illogical currency system which it replaced. Some national banks still maintain a share of their currency in the form of national bank notes which, bearing the name of the bank of issue, serve as a type of advertisement. Paving the way for a gradual retirement of all national bank notes, the Federal Reserve Act makes provision for the issue of Federal Reserve bank notes, which have the same security of government bonds as the national bank notes. Although there are traces of the old national bank currency still in existence, the mainstay of the present currency system is the Federal Reserve note, the issuance of which is skillfully geared to the commercial needs of the country.

In the management of bank reserves which form the underpinning of credit and currency in the United States, the Federal Reserve

system is also notably different from the old national banking system. Instead of a system of individual bank reserves, which proved itself a breeder of credit crises, there is group reserve management which lends itself to bank coöperation and a substantial measure of control by public officials. Under the old national banking system the public supervision over the commercial credit system of the country consisted primarily of seeing that the legal reserve requirements were observed, and taking over the management of insolvent banks. Under the reserve system there is machinery designed to insure a steady supply of credit for commercial purposes and to prevent reckless credit expansion such as that which tended to be induced by a system of individual bank reserve management. The Federal Reserve Board at Washington, by exercising general supervision over the system, is in a position to see that it is managed not only with reference to the desire of bankers for profits, but also with reference to the general public interest, which demands a credit system carefully adjusted to the commercial needs of the country.

Just how well any banking machinery works, however, depends in part on the men operating it. After thirteen years of experience with the Federal Reserve system, the business men of the country, generally speaking, approve not only of the Federal Reserve machinery but also of the way in which it has been managed. In a eulogy of the system issued by the Chamber of Commerce of the United States it is noted, among other demonstrated virtues, that the reserve system has:

- "Given business men greater confidence in the ability of the banks to care for credit needs,
- "Introduced an elastic currency and eliminated money panics,
- "Eliminated extreme seasonal fluctuations in rates of interest,
- "Brought business safely through the war and post-war crises,
- "Made the gold reserve more effective as a basis for credit extension in times of extraordinary need."

Representatives of the great staple agricultural crop-producing regions of the west and northwest, which have been in a more or less continual state of economic depression since 1920, are much more temperate in their praise of the reserve system than the representatives of business interests. They are generally willing to agree that the Federal Reserve system is a marked improvement over the national banking system, but they do not endorse unreservedly either the new banking machinery or the men who run it. Most of the criticism of the reserve system by western agrarian leaders springs from events which occurred during 1920. During that year the Federal Reserve loans on paper secured by agricultural products were restricted by the reserve authorities, and at about the same time the prices of many agricultural products dropped precipitately. Representatives of the farmers attributed this drastic price decline in substantial measure to the fact that the farmers were

denied credit at reasonable rates with which to market their products in an orderly fashion. Defenders of the reserve authorities said that credit restriction was necessary because the reserves of the system were nearing exhaustion, and attributed the decline in the prices of agricultural products to world market conditions rather than to any shortage of credit.

Since 1920 the level of prices for farm products has never reached the level it attained in the early months of 1920, and some of the farm leaders blame the reserve bank authorities for precipitating eight years of economic woe upon the farmers. Most students of the events of 1920 seem agreed that while the restriction of credit may have aggravated the economic disaster for many agricultural sections, it was an aggravation rather than a basic cause of the difficulty.

Some antagonists of the reserve system, possibly prompted by specific grievances such as those of the farmers, charge that the banking system has been centralized altogether too much under a government bureaucracy, the Federal Reserve Board, which is in turn under the control of "Wall Street." They contend that the President, in naming the members of the board, consults the wishes of leaders of the New York financial group, and that these representatives in turn dominate the commercial banking system of the country. The validity of such a contention as this depends upon the character of the occupant of the White House at the time it is made, and the extent of the power over the system exercised by the board.

The question of the board's power was brought into dispute during the summer of 1927 as a result of its action in ordering the Federal Reserve Bank of Chicago to lower its discount rate from four to three and one-half per cent. Champions of the Chicago bank contended that the Federal Reserve Board had no authority to initiate discount rates for the reserve banks, but simply authority to review the rates instituted by the various banks. Final settlement of the question will have a bearing on the validity of the contention that the Federal Reserve system promotes undue centralization of bank management in Washington. While this question remains unsettled, it should be noted that there are those who contend that the reserve system, far from placing too much authority in the hands of public officials, really leaves the power which commercial bankers enjoyed under the old national banking system little disturbed, and on that account fails to take adequate account of the public interest in the commercial banking system.

The merits of many of the conflicting contentions about the virtues and weaknesses of the Federal Reserve system can be settled only by further experiment. In the meantime, it can be readily agreed that this system is a vast improvement over the old national banking system, because it is able to handle many present-day situations which the older system could not cope with. On the other hand, experience has already led to numerous amendments to the original act. Changing conditions have called for changing arrangements in the past and no doubt will in the future.

QUESTIONS

1. Would it be possible for a country to be "on the gold standard" without having any gold at all in the country? If so, what would be the required conditions? Would they be likely to exist?
2. What economic changes that have occurred since the days of the American Revolution have given rise to the extensive use of commercial credit?
3. How do customers of the bank obtain their deposit credits? Are these assets or liabilities to the bank?
4. One writer states that "some of the most serious problems of finance throughout our history have arisen from the frequent failure to differentiate in practice between investment and commercial credit." Explain how this confusion might well lead to serious consequences.
5. It is said that the wide use of commercial credit in our system makes it extremely sensitive and that shocks sustained by any part of it are widely felt. Indicate how the wide use of commercial credit has this effect.
6. "The goldsmith was the first person to perfect the large-scale manufacture of credit." Explain.
7. "Commercial banking is essentially an insurance business." Do you think this is true?
8. Bankers' acceptances are bills of exchange drawn on banks and accepted by them. Find in your newspaper the rate of interest being charged on bankers' acceptances and compare it with that being charged on prime 90-day commercial paper. Then explain why the rates are not the same.
9. Under the old national banking system country banks were required to maintain a 15 per cent reserve. They were allowed to keep sixty per cent of this on deposit in a reserve city bank. Reserve city banks were required to maintain a 25 per cent reserve. They were allowed to keep fifty per cent of this reserve on deposit in a central reserve city bank. Central reserve city banks were required to have a 25 per cent reserve which they had to keep on hand in their vaults. With these figures as a basis, compute the minimum amount of cash reserve necessary to support \$100,000 of deposits in a country bank under the old national banking system.
10. Federal reserve banks are required by law to keep 35 and 40 per cent of gold reserve back of member bank deposits and Federal Reserve notes respectively. What other backing is required for these liabilities?
11. Outline clearly the process of rediscounting as it is carried out under the Federal Reserve system.
12. Country bank members of the Federal Reserve system are required to maintain a reserve of 7 per cent against demand deposits. Of what does this reserve consist?

13. (a) The books of the Acme National Bank on January 1, 1925 show the following account balances:

Cash on Hand	\$ 60,000
Reserve Deposit at the N. Y. Federal Reserve Bank .	100,000
Deposits of Customers	1,000,000
Loans and Discounts	500,000
Real Estate, and Bank Fixtures	500,000
Investments Owned	400,000
Loans Rediscounted at Federal Reserve Bank	60,000
Capital and Surplus	400,000
Undivided Profits	100,000

Arrange the items in the form of a balance sheet dated January 1, 1925.

- (b) During the fiscal period, January 1, 1925 to June 30, 1925, the following transactions take place:
1. Cash deposits are made by customers amounting to \$400,000.
 2. Cash is paid out to depositors, \$100,000.
 3. Investments are sold for cash, \$200,000.
 4. Loans and discounts are made in the form of deposit credit, \$300,000.
 5. Additional cash deposit is made in the Federal Reserve bank, \$170,000.
 6. Rediscounts are paid off by check against reserve deposit, \$50,000.
- Ignoring interest charges, reconstruct the balance sheet after these transactions have taken place.
14. What are the outstanding improvements which the Federal Reserve system makes over the old national banking system?
 15. The initiative comes from one part of the Federal Reserve system in "rediscounting" operations and from another in "open-market" transactions. Account for this fact, and indicate what you regard as its significance.
 16. Outline the things that you would like to know before accepting the opinion of some farmers that they were gravely wronged by the Federal Reserve system in 1920.

THE CORPORATION AND INVESTMENT BANKING

THIS chapter will examine the corporation as a device to obtain and administer funds, and consider some of the recent phases of corporate development together with their effects on the business structure. The material is grouped along the following lines:

1. Extent of the corporate form of organization.
2. Formation and development of a corporation.
3. Flotation of corporate securities by investment bankers.
4. Some of the problems raised by such methods of financing industrial activities.
 - (a) Separation of ownership and control of corporate property.
 - (b) Concentration of economic power in the hands of small, well-organized groups.

WE HAVE seen how the needs of business for short-time credit have led to an elaborate development of commercial banking facilities. Our system of large-scale production of goods for subsequent market sale also calls for great aggregates of machinery, buildings, and equipment which individuals alone are rarely able to purchase. This situation, coupled with the fact that modern business imposes great financial risks upon those who participate in it, has led to the development of the corporation. The rise of the corporation to a place of great importance in our economic system will be outlined in the first part of this chapter. Then we shall look more closely at some of the details of corporate organization, including the formation of a corporation, the issuance of securities, and the direction of corporate policy. In connection with the issuing of securities for public sale we shall find the investment banker playing an important part and demanding in return some share in the control of corporations as well as money payments. In conclusion we shall take a glance at one or two of the social problems which have arisen as a result of the financing of long-time operations by the organization of corporations, and the sale of their securities by investment bankers. Whether rightly or not, it appears to certain authors that the corporation, which was described by an enthusiastic writer in 1840 as "the rose of wealth," is not without its thorns.

Adam Smith insisted one hundred and fifty years ago that the only "trades" a "joint stock company" could carry on successfully were the banking trade; the trade of insurance from fire, sea risk and capture

in time of war; the trade of making and maintaining a navigable cut or canal; and the trade of bringing water for the supply of a great city. Since that time the face of the industrial universe has been so altered that the corporation is now an almost universally accepted part of the equipment for carrying on our economic life. How this came to be is partially indicated by the following statement.

THE CORPORATION DEVICE ¹

by T. W. Van Metre

IN THE early history of the United States the leading industrial activities could easily be carried on by individual business men or by partnerships, but as population spread and the natural resources of the country became available for exploitation, it quickly became apparent that the older types of business structures could not command a supply of capital sufficient to carry out the large projects in the fields of transportation, manufacturing, and banking necessary to a proper utilization of the economic opportunities which the country afforded. The corporation was a device in every way suited to the needs of the situation. It afforded a means of concentrating the capital of a large number of persons into a single enterprise without subjecting the contributors to a risk greater than the amount of their investment, or requiring their personal attention to the management of the business; and the other advantages of corporate organization, such as the continuity of existence and the easy transferability of ownership, were additional features that favored its extensive use.

At the time of the formation of the Union there were few private corporations in the United States. Within a few years, however, the number began to grow rapidly, the first marked increase coming shortly after 1790, with the organization of a large number of turnpike companies in the Eastern States. At first, transportation and banking offered the best fields for corporate activity; but manufacturing soon afforded abundant opportunity for general investment, and the corporation began to displace the individual and the partnership in this branch of industrial activity. Early corporations were chartered by special legislative acts, but, both because of the corrupt practices that arose in connection with attempts to secure the enactment of special legislation and because of the need for a more comprehensive and uniform system of dealing with the questions affecting the organization and control of chartered companies, most of the States passed general laws regarding their formation and management. Under the liberal policies of the State governments, and with the growth of population, wealth, and commerce the corporation rapidly assumed a position of dominance in all industrial and financial enterprises. Most of the transportation, banking, insurance, manufacturing, and mining

¹ Adapted from *History of Domestic and Foreign Commerce in the United States*, Carnegie Institution of Washington, 1915, Vol. I, pages 307-308.

interests of the country passed under the control of corporations before 1850, and after that year, as the need for larger and larger amounts of capital arose and as the advantages of large-scale production and concentration of industry became more apparent, there was an even more rapid growth in their number and a greater increase in their wealth and dominating influence.

. . .

If agriculture were organized along corporate lines, the corporation would be the almost universal form of organization for business enterprises in the United States. Agriculture, however, has not yet lent itself extensively to corporate organization, as indicated by the following statement. The contrast between the use of the corporate device in farming and other forms of business enterprises will serve to illustrate some of the limits of corporate organization.

AGRICULTURE AND THE CORPORATION ²

by Robert Stewart

AGRICULTURE as it is now carried on is essentially a personal industry in which neither organized management nor organized capital plays any really important part. Manufacturing, transportation and merchandising enterprises obtain their capital for operating purposes largely by the issue of share capital, while this form of capital practically does not exist in agriculture. There is today no source of capital available for operating purposes in agriculture similar to the share capital invested in other lines of business. One of the difficulties agriculture is now laboring under is the inability to obtain sufficient capital with which to do business.

There is a growing belief among some agricultural leaders that certain types of agriculture in America must develop in the future along corporate lines in much the same way that industry in general has developed in the past fifty years. It is believed that in this way more effective methods of obtaining capital for agricultural use will prevail and that many agricultural enterprises will thus be able to make more efficient use of the factors of production in reducing the cost of the production of agricultural commodities.

There are certain inherent difficulties in attempting to produce agricultural commodities by group effort. Certain types of farming require close personal supervision for success. In poultry production and dairying, for example, the maximum efficiency unit is very small and the character of the work involved is so exacting that it is exceedingly difficult to obtain the necessary skilled labor of sufficiently high quality to make large-size farming successful. Such types of farming will undoubtedly largely remain one-man enterprises.

There are certain other types of farming where big business methods

² From an article, "Big Business Methods for the Farm," *American Bankers' Association Journal*, June, 1926, page 842.

of quantity production may be applied successfully. In the production of wheat, oats, barley and rice it is quite probable that engineering methods and machinery may be used with success in large-scale production. A number of illustrations of successful farms of this type are now going concerns. Another difficulty of corporate farming is the inherent desire of the individual to have title to his own piece of land which he farms. The American farmer of today is an individualist who prides himself on his individuality and independence, often to his own disadvantage. This desire of the individual for ownership of his farm is a strong factor to contend with in the development of industrial types of farming by corporate management. There are, therefore, a number of important problems to be solved before corporate or industrial farming is successful on a large scale in America.

Considerable attention has been paid in recent years to the merchandising of farm products by coöperative effort and group action. Some attempts have also been made to buy farm supplies through coöperative effort. Practically no attempt has been made, however, to reduce the cost of producing farm products through united group action, and production still remains an individual matter.

. . .

Just what is this "corporate form of organization," said to have become predominant in most lines of economic activity? The following article explains in some detail what a corporation is, how its activities are controlled, and why this form of organization is so common.

FORMING A CORPORATION³

by Albert S. Keister

ONE morning in April, 1925, the financial world was startled by the announcement that an investment banking firm in New York had purchased Dodge Brothers, the well-known automobile company, for \$146,000,000 cash. A few days later, the bankers sold bonds to the amount of \$75,000,000 and stocks to the amount of \$85,000,00 to the public, thus recovering what they paid plus about fourteen million dollars gross profit. As a part of the profit the bankers retained sufficient common stock to enable themselves to control the company.

Why did the bankers create these securities to be sold to the public? What did the purchasers of stock get when they bought stock? If the bankers wanted to keep control of the company, why did they retain the *common* stock? The answers to these questions will be indicated by the following discussion of corporate organization and control.

Shares of stock are not needed in simple business. If a person is starting in business or professional life for himself, say as a farmer or a teacher, he has no reason to issue shares of stock. No one besides himself is involved in the ownership of the enterprise. He makes rela-

³ From an unpublished manuscript.

tively few contracts with outside parties, and in all contracts made the parties know with whom they are dealing. Responsibility is fixed.

With a partnership the case is similar. Suppose Birch, Ash, and Elm form a partnership to conduct a retail clothing store. Each invests \$1,000. A partnership agreement is drawn up and signed providing for the conduct of the business by the three men, the salary each shall draw, the division of profits and losses, and other details.

In the partnership, as in the enterprise owned by one man, the dealings with the public are simple and direct. In making contracts, everyone concerned knows who is responsible. Shares of stock are not necessary, either to raise the capital or to show the proportion of the business owned by each partner.

Quite different is the corporation from the partnership. The partnership is inseparable from the partners; they really are the partnership. On the other hand, a corporation is separate and distinct from its owners. It is a being created by law, an artificial person with a life entirely separate from the existence of the persons forming the corporation. It possesses whatever powers the law confers upon it; it meets whatever obligations the law requires it to meet. The separateness of the corporation from its owners may be visualized as follows:

		Stockholders
		A
		B
		C
Corporation	is owned by and has contracts with	D
		E
		F
		etc.

To understand why and how corporations are formed, and how shares of stock are used in their formation, we may follow the career of the Birch, Ash, and Elm partnership.

For some time they have conducted their retail clothing store successfully. It is the evening of January 20. The books for the past calendar year have just been closed, showing that after all expenses have been paid (including salaries for the partners, interest on funds invested by each partner, and depreciation of their building, fixtures, and merchandise), there remains a net profit of \$6,200. Birch reclines comfortably in his chair as he says, "For some time I have been thinking we ought to incorporate. I have a house in town worth \$30,000 and those two farms west of town. Altogether, I guess I'm worth about \$70,000 outside of my interest in this store. Suppose something should happen to our business and it should go under with a heavy debt unpaid. According to law they could take my farms and my home from me. Although we are doing well now, we all know that firms fail without the fault being traceable to anyone. Conditions beyond control carry them down. By incorporating

we can place our outside property beyond the reach of creditors. According to law, in this state, as you know, the owners of an ordinary corporation are not liable for the debts of the corporation. My property would be safe."

"I think that's a good idea," remarked Elm. "While I agree with Birch that it would be a good thing to limit our liability, I have been thinking of the advantages of incorporating from another standpoint. I think the time has come for us to expand our business. We ought to open a store on the south side and one in Lynnwood [a suburb]. I estimate that we could increase our sales to nearly three times the amount we have now, whereas our expenses would be only about twice as heavy as at present, owing to the fact that some items, such as our own salaries, need not be increased at all, and others will be increased only slightly. And if we were buying for three stores instead of one we could get clothing considerably cheaper. If we make a success of these proposed stores, I'd favor adding others later on. To open two new stores would require about \$20,000 of new capital. To raise these funds and prepare the way to raise still more later on, I advocate incorporating. Then we could issue and sell shares of stock as we needed the money. There are many persons I could name who would eagerly join us in a corporation. They wouldn't come into our partnership, for fear of the unlimited liability Birch was talking about. If we want to expand our business, we must incorporate. That's the best way to get the funds."

"Well," said Ash, "I guess I'll have to agree to do it. I am not eager to expand the business as Elm urges, because I'm afraid when we spread out, a lot of leaks and wastes will creep in. I fear we shall be disappointed in the results of such a policy. Neither am I greatly concerned about my unlimited liability, for my wife and daughter manage to get rid of all I make as fast as I make it, so I have nothing for anybody to seize in case we fail. Then, too, you must remember that it is somewhat more expensive and bothersome to run a corporation than it is a partnership. Taxes are usually heavier, annual reports must be filed with the state, while red tape is involved in getting the charter, obtaining permission to sell the shares of stock, and operating the corporation. But if you two want a corporation, I'll not stand in the way. And I do see this additional advantage in it: if one of us should die suddenly, the business would go right on if it were a corporation, whereas it would stop instantly if it were a partnership. A corporation can have indefinite life. When an owner dies or withdraws, his shares pass to someone else."

The result of the evening's discussion was that an attorney was appointed to look after all legal matters and to obtain a charter, or certificate of incorporation. The charter, which was issued by the Secretary of State under the state's general corporation laws, authorized the formation of the Enterprise Clothing Company, and stated in a general way the powers of the corporation. The capital stock of the company was fixed at \$100,000, divided into 1000 shares; each share therefore had a nominal, or par, value of \$100. The three partners

turned over the property of the partnership to the corporation, receiving in exchange 600 shares of stock, 200 for each man. This wiped out of existence the partnership and made the three men stockholders in the corporation. Of the remaining 400 shares, 200 were sold at \$100 each, the \$20,000 being used to open the two new stores. The remaining 200 shares simply remained authorized but not issued. This sale of shares brought twelve more stockholders into the corporation, but since the three founders of the business held 600 shares, while the other twelve stockholders together held only 200 shares, the three were able to control the decision of all questions coming before the stockholders. [The usual rule for voting in a corporation meeting is one share one vote, not one man one vote.]

As the foregoing case illustrates, shares of stock indicate how much ownership a person has in a corporation. For example, Birch owned 200 shares; there were 800 shares issued altogether; therefore Birch owned one-fourth of the corporation. Similarly, Ash and Elm each owned one-fourth. If Hickory had owned one share, he would have owned 1/800th of the corporation.

The owners of a corporation are supposed to govern the corporation. However, very few owners can give their time and attention to corporate affairs. To meet this difficulty several devices have been created. One of these is for the stockholders to adopt a set of by-laws, which decides a number of questions, such as the time and place of the annual meeting of stockholders, the time and place of directors' meetings, and the duties and powers of the various officers. Another and more important device is that of electing, from among the stockholders, a board of directors to represent the stockholders and to decide important questions of policy. Finally, some matters of policy are left to the officers, who are chosen by the board of directors.

We find, therefore, that a corporation is an artificial person, created by the state. For convenience, the ownership is broken up into shares, permitting investors to buy many or few shares as they choose. The human beings responsible for the ownership of a corporation are known by various names, such as stockholders, owners, and members. Practically speaking, the stockholders have a contract with the corporation by which they agree to invest their capital, assuming the risk of losing that capital, in return for which the corporation agrees to recognize them as its owners and to leave to them ultimate control of the affairs of the company. The evidence of this agreement is a stock certificate placed in the hands of the stockholder.

We observed that when Birch, Ash, and Elm converted their partnership into a corporation they took 600 shares of the stock, while twelve other persons bought 200 additional shares. Since these fifteen stockholders lived in the same community, they could attend meetings, and were able to decide many of the important questions confronting the business. The five directors elected by them, however, had to decide some matters, such as the election of officers and the disposition of profits.

When the directors and officers had been elected, the chart of organization appeared as follows:

15 Stockholders
elected

5 Directors
who elected

Ash
President

Birch
Vice-President

Elm
Secretary-
Treasurer

The foregoing case is that of a small local corporation. In a large corporation a different state of affairs would be found. Suppose that, instead of a corporation with fifteen stockholders living in the same town, we had a corporation with 30,000 stockholders scattered over ten states. It would be impossible to have even a majority of them meet to decide anything. The result is that a few individuals usually control a large corporation. Indeed, frequently one person, a "key" man, dominates the affairs of a large business. Such a concern may employ many thousand workers and sell many millions of dollars' worth of product annually, yet be dominated by one person. It is impossible for the average stockholder to participate in the running of the business, even if he so desires. If he receives his dividend checks regularly, he does not care greatly what happens on the inside; and since the time and place of the stockholders' meetings make it impossible for him to attend, the "insiders" usually have things their own way. When a stockholders' meeting is called, the officers (who have access to the names and addresses of the stockholders) readily secure a sufficient number of proxies to make possible the execution of their plans. [A proxy is a signed permit authorizing someone else to vote one's shares.]

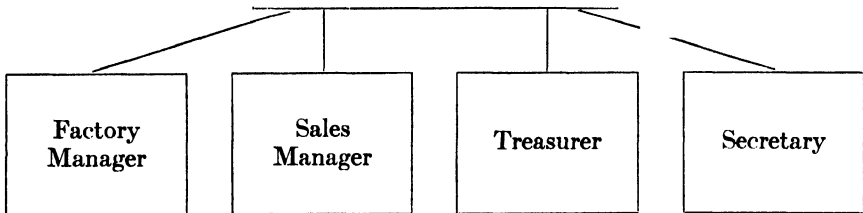
Meetings of the board of directors may be similarly dominated by a key man. Directors usually feel that they know less about the business than the officers who are giving full time to the work. Furthermore, they usually owe their election to the key man. It is not surprising, therefore, that directors commonly meet and simply vote to approve whatever the

officers have done or seek to do. *In theory*, the lines of control in a corporation run as follows:

Stockholders
decide very broad ques-
tions of policy and elect

Board of Directors, who
discuss and decide impor-
tant questions and elect

President
in general charge of all
corporate affairs, and
other officers, such as

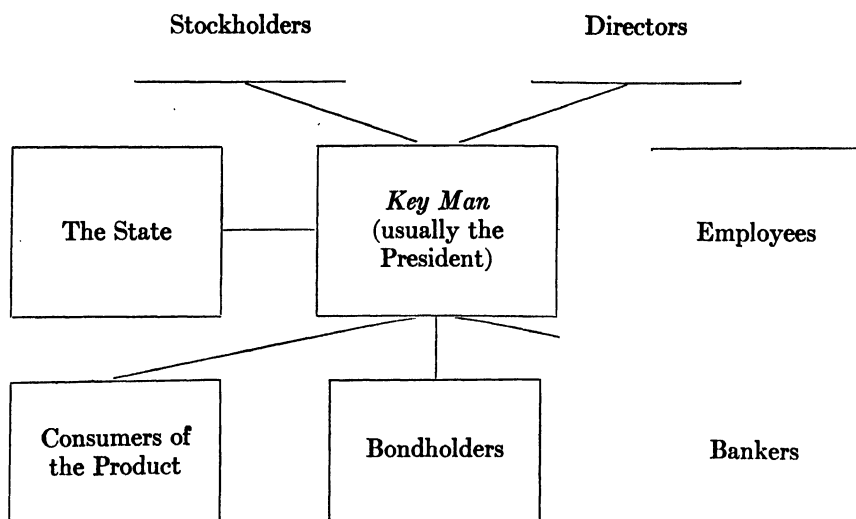


The chart, in its details, is merely suggestive of one possible arrangement. It does not, of course, describe the actual organization of all corporations.

In practice the large corporation is perhaps better represented by the following chart [p. 161], since there are a number of other important groups interested in a corporation besides the stockholders, directors, and officers. This chart suggests that the various interests associated in a corporation cluster about the key man. He is usually the dominating spirit of the corporation.

Thus far we have seen how the owners of a corporation hold shares of stock as evidence of their ownership, how the shares show how much of the corporation each owns, and how these shares confer voting power, which may or may not be used.

Shares of stock are also used to raise capital when a corporation is being formed, not out of a partnership, but new. When the funds for



a new corporation are being raised, the instrument most commonly used is shares of stock. Typically the organizers go to individuals with something like the following: "Don't you want to join us in the corporation we are forming? We have a fine proposition (explaining it). We are confident we will make money. If we do, you will get handsome returns on your investment. We are offering the stock at \$. . . . per share."

In fact, for a new corporation, shares of stock are about the only instrument that can be used to raise the needed funds. As a rule, money cannot be borrowed because the corporation is new, has no established earning power, and for that reason is more or less risky. The appeal therefore must be to those who will take a risk in the hope of reaping large returns. Such persons go in as stockholders.

Periodically, too, readjustments must be made in the finances of business firms. When a period of expansion comes, for example, shares may be the instrument chosen for securing the additional capital. It may be that the directors do not think it wise to incur a debt, fearing the business may be unable to meet the interest and principal when due. Accordingly, they will not borrow the funds, but will order more shares sold. It may be that the corporation has borrowed all that it can, so that the only door open is to sell shares of stock. It may be that the investment market is hungry for stocks, hence stocks can be sold to advantage.

When the executives of a corporation decide to issue more stock, the usual practice is to offer the new shares first to the old stockholders. Indeed, the law generally requires that this be done, chiefly because it is considered just that the present owners of a business be given an oppor-

tunity first to buy the additional shares, since they have borne the risks previously and should now be permitted to enjoy any advantages offered. The privilege extended to old stockholders to buy new stock is known as a "right." If the stockholder does not care to exercise his "right," he may transfer it to someone else.

Before shares of stock can be offered for sale, a price must be placed on them. This may be done by assigning to each share a nominal or par value [as was done in the clothing corporation described] or by fixing some arbitrary price at which to market the shares, without reference to any par value. The practice of placing a par value on shares has its defenders and its opponents. Its defenders say that since the public is accustomed to thinking of shares as having a par value, it is easier to sell shares with par value than those without par value. Then, too, when shares have a par value, dividends can be declared in percentage such as 8 per cent a year, this being a more familiar method than a declaration in dollars per share, which is the method used in case of no-par shares. Furthermore, they claim that the total par value of outstanding shares tells approximately what has been invested in the concern by its owners, since a corporation usually sells its shares at, or close to, par.

The critics of the policy of placing a par value on shares insist that par value is meaningless. A share of stock, they say, is simply a fractional part of the ownership. It signifies nothing to stamp a par value on the certificate; indeed, it does harm because it fools some persons into believing that the par value is the actual or market value. Actual or market value depends, they insist, not on figures stamped on a certificate, but on the profits being earned by the corporation and by its future prospects.

Whatever merits these arguments may have, the fact remains that an increasing number of corporations are issuing shares without par value. One reason for the popularity of such shares is the fact that they may be offered to the public at different times, at different prices, without violating the law. For example, suppose a financial executive has the task of raising capital by selling shares of stock to the public in 1926 and again in 1928. In 1926 the investment market conditions may be favorable, and he may be able to sell the shares at \$120 each. In 1928 market conditions may be unfavorable, and he may be able to get only \$80 each for the shares he is then issuing. With no-par shares he could sell some for \$120 in 1926 and others for \$80 in 1928. On the other hand, if his company's shares had a par value, say of \$100, the law in most states would require that he sell the shares for at least \$100. If market conditions made it impossible to get \$100 for each share, he would be compelled to use some instrument other than shares of stock to raise the needed capital.

While shares of stock are used most frequently for the purposes already discussed, namely, for corporate organizing, controlling, and capital raising, it still remains to point out several other uses.

When a corporation is being organized, it is a common practice for the organizers to reward themselves for their services with shares of stock.

Since the new company seldom has cash to spare, the arrangement seems fair, provided of course that the amount of stock so given is reasonable in amount. Similarly, stock is sometimes given to bankers and security salesmen as their reward for selling bonds or stocks for the corporation. This conserves the cash of the company and sometimes causes the financiers and salesmen to take a more active interest in the successful conduct of the business.

Shares may be used as a bonus with other securities. Suppose a corporation is offering to the public some new securities, let us say, some shares of preferred stock (to be explained presently). The price is par, \$100 a share. The public may not respond to the offer of the preferred stock alone, feeling that there are other investments available that are more attractive. But suppose the corporation offers one share of common or ordinary stock free with every share of preferred purchased. The sale may be a success. The buyer may be won over by the bonus of common stock. He may feel that the common stock will be valuable some day, even if it has little or no value when he receives it. From the corporation's viewpoint, the financial manager may be convinced that the cheapest way to raise the capital is to give a share of common stock with every share of preferred purchased.

Shares may also be used to pay dividends. Instead of paying a dividend to the stockholders in cash, it may be paid in the form of additional stock. The use of a stock dividend may be illustrated by the following case:

From 1923 to 1927, a certain tobacco corporation made very large profits. Although it paid liberal cash dividends, the profits remaining undistributed ran into high figures. These undistributed profits (called surplus) were invested in extensions to the factories, in new machinery, and in heavy advertising campaigns. The market value of a share of the company's stock rose from about \$22 in 1923 to \$236 in December, 1927, responding to the large profits made and to the increasing value of the company's property. In January, 1928, the directors voted a 100 per cent stock dividend, which meant that the corporation doubled the number of shares of stock outstanding by giving each stockholder as many new shares as he held old ones. The newspapers referred to it as another case of "cutting a melon." There were several reasons why the directors voted the stock dividend. One was that they wanted to pacify the stockholders who were clamoring for more dividends. Since the profits were being invested in extensions of the business, they were not available for distribution in the form of cash. Yet the company was abundantly able to pay an extra dividend. The directors wanted to give the stockholders something, but were not in a position to pay cash. Another was that the directors desired to bring down the market price of the company's stock so that more persons would become stockholders. By doubling the number of shares the market price would fall about one-half. This would bring the shares within the reach of more investors, thereby probably increasing the number of shareholders. This in turn might increase the sales of the

company's products and might also make it easier to sell shares directly to the stockholders in the future, if that were needed. Still another reason was that the directors desired to make possible the payment of larger cash dividends without increasing the rate. The rate had been \$8 per share yearly. With 100,000 shares outstanding, this meant \$800,000 a year cash dividends. The reinvestment of profits had about doubled the earnings, thus making it possible to double the cash dividends in the future. If no stock dividend were issued, doubling the cash dividend would have meant a rate of \$16 per share annually. The directors were afraid of the criticism such a rate would provoke from those who would claim the corporation was making too much money. By doubling the number of shares through a stock dividend of 100 per cent, the rate of cash dividends could be kept at \$8 per share, but this would take \$1,600,000 of the profits, thus distributing the increased earnings without announcing any change in rate.

On the balance sheet of a corporation a stock dividend merely transfers a certain amount from the surplus to the capital stock. For example,

Before the Stock Dividend

Capital stock (5,000 shares, par value \$100).....	\$500,000
Surplus (profits retained in the business).....	750,000
Total ownership Value.....	\$1,250,000

After Paying 100 per cent Stock Dividend

Capital stock (10,000 shares par value \$100).....	\$1,000,000
Surplus (having transferred \$500,000 to capital stock).....	250,000
Total ownership Value.....	\$1,250,000

We have already observed that the stockholder and his corporation enter into a contract with each other. The terms of this contract may be somewhat flexible, permitting various provisions to be inserted. If no special provisions are inserted the shares are known as common shares, or perhaps more frequently as common stock. Common shares give to their holder the common or ordinary rights of a corporate owner, such as the right to vote on important matters of policy, the right to vote for directors, and the right to receive dividends to any amount that may be declared by the directors.

Since the executives of a corporation have the task of raising capital as cheaply as possible, it is not surprising that they have devised many different types of contracts to appeal to many types of investors. One of the most frequently used contracts for raising capital is that known as the preferred share. A typical use of preferred shares was made by our friends, Birch, Ash, and Elm as their clothing business expanded. To that story we may now return.

Four years after the business was incorporated, the time came to consider the possibilities of expansion.

In directors' meeting Birch says, "Mr. President, four years ago I advocated incorporation so that we could raise additional capital and open two new stores. We have done so and succeeded admirably, as your report shows. We have made an average profit of \$10.87 per share on our stock over the four years past, paying \$7 per share cash dividends and 'plowing under' the rest of the profits until now we are thoroughly established, have all bills paid, and a good balance in the bank. I believe the time has come to move into large fields; I believe we should establish a chain of retail clothing stores in this part of the state. With our organization we can supervise eight or ten stores as effectively as we can the three we are now operating. To set up eight new stores will take about \$55,000. We can spare \$5,000 from what we have in the bank. I suggest we raise \$50,000 by selling 500 shares of 7-per-cent preferred stock at par, \$100 per share. I have two reasons for recommending the use of preferred stock rather than common stock.

"In the first place, we can contract to make these preferred shares non-voting shares, thereby assuring ourselves that we shall retain control of the company. I do not mind saying that I think we should control this business, because we founded it and have been mainly responsible for its success. If we raise this money by non-voting preferred shares, we shall insure ourselves control, for we shall continue to have a majority of the shares of common stock.

"In the second place, by selling preferred stock we can increase the earnings on our common stock. We have been earning between \$10 and \$12 a year on our shares of common. If we sell more common stock and make the same profit on the new money as we have made on the old, we shall have but \$10 to \$12 profit per share. But if we raise the new money by selling 7-per-cent preferred shares and the new money earns \$11 per share each year, we shall pay the preferred owners \$7 of that \$11 and have \$4 left for ourselves as common stockholders, raising the earnings on our common to about \$15 per share. We shall be making money on their money. The only thing we need do is to let them have the preference over us in the earnings up to \$7 per share (hence the name preferred stock).

"I therefore move that we take steps at once to apply to the state authorities for permission to amend our charter, authorizing an issue of 500 shares of preferred stock, of the par value of \$100 each."

In the discussion that followed diverse opinions were heard. One director was doubtful whether preferred shares carrying 7 per cent annual dividends would sell at par in view of the fact that preferred stock of some of the best-known companies could be bought at prices yielding 7 per cent to the investor. To this Birch replied that a local enterprise ought to appeal to local investors because they could see where their money was going. Treasurer Elm wanted to know whether the stock was to be made *cumulative* preferred, meaning that if the dividends were missed for one or more years they should accumulate and be made up later before the common stock could receive any

dividends. It was agreed that since practically all preferred stock being issued in recent years was cumulative, theirs should be cumulative also. Elm's next question was whether the stock was to be made redeemable and if so at what price? (Redeemable stock is stock that may be called in or redeemed by the corporation.) Birch argued that it should be made redeemable, because the company's future operations might be so profitable that the common stockholders would desire to apply some of the profits to retiring the preferred stock so that the preferred owners would be out of the way. He recommended that the "call" or redemption price be \$110 per share, the \$10 premium being an attractive feature to help sell the shares, as well as compensation to the shareholder for surrendering his investment in case the shares were called in. The plan was finally adopted. Preferred shares financed the expansion of the enterprise.

While preferred stock is more frequently used than any other to supplement common stock, we do find other kinds.

If the management desires to create non-voting stock, so that control of the company may be held by a certain group, another method of carrying out such a policy is to create two classes of common stock, Class A and Class B shares, both classes being alike except that Class A shares have no voting power, while Class B shares have exclusive voting power.

If the policy is to raise funds by appealing to a class of investors who want shares that carry a decided preference over other shares, the policy can be neatly carried out by creating prior preferred shares ranking ahead of preferred shares.

The usual type of preferred shares may be made more attractive by being made participating, that is, by participating with the common shares in dividends above a certain amount. A plan frequently used is to pay a given percentage (say 7 per cent) on the preferred, then the same percentage on common, and then to divide further dividends equally between the two. Participating preferred shares are sometimes used by corporations engaged in risky and speculative enterprises. In case the venture turns out successfully, the preferred stockholders share in the large profits made.

Thus a variety of stocks arise, carrying not only different names, but different privileges, different rights, different powers. Each kind of stock is a separate contract binding upon the issuing corporation and upon the stockholder. And each kind is in existence because a question of policy was settled in a certain way. In wrestling with his problems, the financial executive has become ingenious in devising various kinds of shares. He buys his capital on the best terms he can make.

. . .

The corporation is not the last word in answer to the call of the machine for capital funds. Large issues of stocks and bonds, the securities through which long-time operations are largely financed, are

not always easy to sell in piecemeal fashion. A new variety of financial specialist has appeared on the scene, offering to purchase securities in large blocks, with a view to selling them to the public subsequently.

THE INVESTMENT BANKER⁴

by P. M. O'Leary

WHEN we speak of the "handling" of securities by investment bankers, we refer to a process about which it is desirable that every student of our economic system should have some knowledge. Important consequences arise from the way in which modern "big business" is financed, and critics of the existing system who denounce it as autocratic and plead for its democratization usually find in bankers, especially big investment bankers, the ruling autocrats. The "House of Morgan" has been hissed too often both by the blatant demagogue and by the sincere, if somewhat melodramatic social reformer, for us not to appreciate the fact that not all people view the operations of investment bankers with equanimity. This much maligned "House" is merely the investment banking firm of J. P. Morgan and Co., the largest American firm of its sort and probably by now the largest in the world. Such firms as this are the chief *initial* providers of the long-time investment funds which we have seen to be a necessary concomitant of the machine age, and in the raising of which we found that various so-called "securities" have played a highly important part. To put it briefly, investment bankers give cash to business concerns in exchange for the stocks or bonds [or both], of those concerns. They then sell these securities to the public, or to that part of it which has funds to invest, including private individuals, trust companies, commercial banks, savings banks, insurance companies, endowed institutions, etc. It was because of this reselling process that we were careful to speak of investment bankers as the "initial providers" of long-time investment funds.

In the reselling process itself the original purchasing bankers usually make use of a practice known as "*underwriting*." This consists in getting other investment banking concerns to guarantee that certain amounts of the securities to be sold to the public will actually be sold, and that, in the event of the public's failing to respond and absorb the entire issue, the underwriting bankers will themselves take their respective portions of the unsold securities at a price specified in the underwriting agreement. Now the "respective portions" just mentioned are determined by the extent to which the several investment banking houses involved "participate" in the total amount of securities to be sold. For example, a large New York banking firm buys from one of the transcontinental railroads \$100,000,000 worth of its bonds. It then proceeds by telegraph to offer other investment banking concerns all over the country a chance to join the underwriting group or "underwriting *syndicate*," as it is called. Let us assume

⁴ From an unpublished manuscript.

that one hundred firms join in response to this invitation, each one joining or "accepting participation" to the extent of \$1,000,000. Further let us assume that despite the best efforts of the big New York firm to induce the public to buy the bonds, only \$50,000,000 of them can be disposed of, leaving the other \$50,000,000 unsold. What happens? Simply this: at the end of a certain period of time specified in the underwriting agreement, each of the one hundred underwriting concerns which entered into the underwriting agreement by accepting participation to the extent of \$1,000,000 must take from the New York firm which induced it to so participate \$500,000 worth of the unsold bonds at the price specified in the agreement. These it may dispose of as best it can. The New York firm which originally purchased the issue from the railroad is protected against being "loaded up" with \$50,000,000 worth of unsold securities. Obviously its initial willingness to commit its funds to such a big issue of bonds was based upon its knowledge of its ability to so protect itself by resorting to *underwriting*.

In our example we have one big New York investment banking firm as the original purchaser of the bonds from the issuing corporation. It often happens that two or three such big concerns work together in what are called "joint accounts," or "original purchase syndicates," as contrasted with the secondary "*underwriting syndicate*" which we have just described. Most of the big issues of bonds and preferred stocks sold in the United States are sold through the use of this combination of original purchase syndicate and secondary underwriting syndicate. The foreign loans, of which so many have been made in the past few years, are invariably taken care of in this way. Incidentally, it is interesting to notice that in the case of almost all of these loans to foreign governments the participants in the underwriting syndicates have had to content themselves with fractional parts of the participations for which they applied.

In addition to making a regular trading profit out of such transactions as they "underwrite," or out of the purchase and resale of a company's securities to investors, investment bankers often demand a voice in the management of the concern itself. This voice is usually secured by giving the bankers representation upon the corporation's board of directors. The reason for this practice is not hard to understand. Investment bankers are very much interested in the future welfare of concerns which they have helped to finance because upon such welfare depends the value of the securities which the bankers have sold to their clients, and upon this in turn depends the goodwill which the customers will have for the bankers with whom they have dealt. Goodwill is a most important asset to a business which deals in such an important commodity as a community's investments. The loss of it means ruin, and the quickest way to lose it is to have a loan which you have sold to a trusting public "go bad." You will be held responsible; so, following the principle that authority and responsibility must be coextensive, you quite naturally demand some authority. From this flow important economic consequences, and because of it investment bankers have become an espe-

cially prominent target for those critics of the existing economic system who levy as their chief charge against it the fact that it is undemocratic and controlled by a few powerful men variously known as "pirates," "Wall Street robbers," "malefactors of great wealth" and "oppressors of the masses."

. . .

Efforts to solve one economic problem frequently generate several other problems. The development of the automobile industry, for example, has contributed greatly to the solution of the problem of speeding up transportation but, in turn, it has produced the problem of providing hard-surfaced roads and armies of traffic officers. Moreover, retail shoe dealers have become alarmed by a sharp reduction in the consumption of men's shoes, which they attribute in part to automobiles. And international complications have grown out of the quest for crude rubber with which to supply tires for our motorists.

The corporate device and the institution of investment banking have met certain needs which arose with the making of goods by large-scale machine methods. In their turn they have created problems which some consider quite serious for particular groups of people and for the public at large. Two of these general problems will receive attention here. The first is that of the separation of control of property from ownership of it. In the early days of the republic, property consisted largely of tangible things such as land, buildings and tools over which the owner exercised direct personal control. In the era of holding companies much of the property owned consists of shares of stock or of bonds. The owner of such securities generally has practically no control over the land, factories, franchise rights, goodwill and other more or less tangible items of which he owns some part. Mr. Keister made clear the fact that usually a "key man" or a small group of men directs corporate policy. This separation of control from ownership, emphasized further in later discussion of holding companies and investment banking, constitutes a general problem of first importance. One phase of it is seen in the fact that owners of corporate property exercise practically no control over relations between the corporation and its employees.

Another phase of this problem is seen in the relation of the small stockholder to the group more intimately associated with the affairs of the corporation. The first statement below is an account of a stockholders' meeting, suggestive of the extent to which the average stockholder participates in the direction of corporation affairs. The second selection describes a looting of a corporation by directors intrusted with its management by a group of widely scattered stockholders. The New Haven Railroad case is an outstanding example of the abuse of

power by those charged with the management of a corporation. When the affair was brought to light it created a sensation because the chief sufferers were investors of small means who in some cases had put the savings of a lifetime into what they had reason to regard as a safe, conservative investment. It should not be assumed that the practices of the New Haven officials typify the conduct of corporation directors. They do not. The vast majority of corporate officials in the United States perform their services faithfully and honestly; but enough cases similar to that of the New Haven can be marshaled—witness the recent Senate investigation of the Continental Trading Company—to warrant its presentation as an example of the exploitation of stockholders by “insiders” charged with the duty of protecting their interests.

A MEETING OF THE CORPORATION ⁵

ONE hundred of more than 100,000 stockholders crowded a little room in Hoboken yesterday to attend the annual meeting of the United States Steel Corporation, and munched sandwiches as guests of Elbert H. Gary, Chairman of the Board of Directors, and listened to his comments on business in general and the steel trade in particular while the tellers counted proxies for 1,323,352 shares of preferred and 2,072,137 of common stock. There were represented in person 345 preferred shares and 5,145 shares of common.

The stockholders were anxious to know how the company was getting along so far as fuel was concerned. “As to the effect of the strike on our coal production,” Mr. Gary said, “I can only say that our operations in the Birmingham, the Pocahontas and the Kentucky districts are at full capacity. In the Connellsville district we are getting about 54 per cent of normal. In view of the large supply stored before the strike, the corporation is well taken care of.”

In ending his talk, Mr. Gary said the export business was back to where it was before the war. “Yes,” he said, “the highest point before the war. And all our business will increase.”

The stockholders gave their chairman a rising vote of thanks.

WRECKING THE NEW HAVEN ⁶

THE result of our research into the financial workings of the former management of the New Haven railroad system has been to disclose one of the most glaring instances of maladministration revealed in all the history of American railroading. Public hearings were held extending over a period of sixty days of almost continuous session. Witnesses in a position to have knowledge of the transactions under scrutiny were exam-

⁵ From the *New York World*, April 18, 1922.

⁶ Adapted from *Report of Investigation by the Interstate Commerce Commission of the Financial Transactions of the New York, New Haven and Hartford Railroad Company*, Government Printing Office, Washington, D. C., 1914.

ined. In the search for truth the Commission had to overcome many obstacles, such as the burning of books, letters, and documents and the obstinacy of witnesses who declined to testify until criminal proceedings were begun for their refusal to answer questions. The New Haven system has more than 300 subsidiary corporations, in a web of entangling alliances with each other, many of which were seemingly planned, created, and manipulated by lawyers expressly retained for the purpose of concealment or deception.

Marked features and significant incidents in the loose, extravagant, and improvident administration of the finances of the New Haven as shown in this investigation are the Boston & Maine despoilment; the double price paid for the Rhode Island trolleys; the recklessness in the purchase of the Connecticut and Massachusetts trolleys at prices exorbitantly in excess of their market value; the unwarranted expenditure of large amounts in "educating public opinion"; the disposition, without knowledge of the directors, of hundreds of thousands of dollars for influencing public sentiment; the habitual payment of unitemized vouchers without any clear specification of details; the confusing inter-relation of the principal company and its subsidiaries and consequent complication of accounts; the practice of financial legerdemain in issuing large blocks of New Haven stock for notes of the New England Navigation Company, and manipulating these securities back and forth; fictitious sales of New Haven stock to friendly parties with the design of boosting the stock and unloading on the public at the higher "market price"; the unlawful diversion of corporate funds to political organizations; the scattering of retainers to attorneys of five States, who rendered no itemized bills for services and who conducted no litigation to which the railroad was a party; extensive use of a paid lobby in matters as to which the directors claim to have no information; the attempt to control utterances of the press by subsidizing reporters; payment of money and the profligate issue of free passes to legislators and their friends; the investment of \$400,000 in securities of a New England newspaper; the regular employment of political bosses in Rhode Island and other States, not for the purpose of having them perform any service but to prevent them from "becoming active on the other side"; the retention by one individual of more than \$2,700,000 in a transaction in which he represented the New Haven and in which he invested not a dollar; the story of the distribution of \$1,200,000 for corrupt purposes in bringing about amendments of the Westchester and Port Chester franchises; the domination of all the affairs of this railroad by two directors and the absolute subordination of other members of the board of directors to the will of these two; the unwarranted increase of the New Haven liabilities from \$93,000,000 in 1903 to \$417,000,000 in 1913; the increase in floating notes from nothing in 1903 to approximately \$40,000,000 in 1913; the indefensible standard of business ethics and the absence of financial acumen displayed by eminent financiers in directing the destinies of this railroad in its attempt to establish a monopoly of the transportation of New England. A com-

bination of all these has resulted in the present deplorable situation in which the affairs of this railroad are involved.

. . .

A second general problem created by changed methods of making goods and of financing the process is that of the concentration of economic power in the hands of small well-organized groups. This is closely allied to the first—the separation of ownership and control—but it is not the same. A coöperative group might sell bonds to obtain funds and still have control of the enterprise widely diffused by giving each stockholder, rather than each share of stock, one vote.

The extent to which control has been centralized and the manner in which this concentration has been effected are indicated in the following articles, which deal chiefly with holding companies and investment banking.

FINANCIAL CENTRALIZATION IN PUBLIC UTILITIES ⁷

by Senator Thomas Walsh

PROF. WILLIAM Z. RIPLEY of Harvard has recently published three articles in the *Atlantic Monthly*, widely read and commented on, in which he refers to the incredible number and gigantic character of combinations launched in recent years and points out new perils attendant upon them. He calls attention, among other features giving rise to concern, to the vastness of the territory into which their ramifications extend, to the control upon control until at times as many as half a dozen organizations intervene between a particular corporate unit and the central governing body; to the intricacies of the financial structure including no-par stock, and non-voting stock insuring permanence of control by a limited number on the inside; to the paucity of information afforded stockholders in reports giving the crowd in control an advantage in market dealings in the shares involved, and to many old abuses in new form and others never known before.

The articles referred to have been collected in a book entitled *Main Street and Wall Street*. The title is expressive of the passing of control of the plants supplying communities, large and small, or being operated therein, from the local people, through whom they were originally installed and developed, to the financial giants of the great commercial centers, usually a banking group.

The tendency toward centralization in industry is particularly noticeable in the field of public utilities, where are exhibited as well many, if not all, of the vices of corporate organization and management, to which attention is so pointedly directed by the writer referred to.

The growth of the industry in question has been phenomenal. Very naturally this expansion of the business has been attended with the

⁷ Adapted from a speech in the United States Senate, February 28, 1927.

organization of many new operating companies, with refinancing to meet the enlarged demands and opening opportunities, and conspicuously with the consolidation of going concerns through holding companies, or by the acquisition by operating companies of some or all of the stock of others, or through the direct purchase of properties in operation.

The ramifications of one of the great holding companies may be noted for purposes of illustration. The Standard Gas and Electric Co., the Byllesby Co., is the giant among giants in this industry, with subsidiaries whose capitalization aggregates \$1,171,000,000, all of which it controls through its own stock issue of \$197,976,400. Its organization is intricate and involved. In the primary group under its control is included the Standard Power and Light Co., which controls the Pittsburgh Utilities Co., which controls the Philadelphia company, which controls the Pittsburgh Railways Co., which controls the Consolidated Traction Co., which controls the Fort Pitt Traction Co., which controls the Allegheny Traction Co., which controls the Millville, Sharpsburg, & Etna Railway Co., eight steps away from the central governing authority. Just how this company, whose capital stock is but about one-fifth of the total stocks and bonds of its subsidiaries, exercises control over them my investigations have not disclosed, but some idea of the system may be gathered from a consideration of the financial set-up of the Associated Gas and Electric Co. Its bonds and debentures, preferred stocks, common stock, class A stock, and class B stock, total \$155,200,565. The sole voting power is vested in the class B stock to the amount of \$10,500,000. Its subsidiaries are capitalized at \$205,209,395, making a total capitalization of \$360,409,960 under the control of stockholders owning a little over \$5,000,000 of B stock, less than 1½ per cent of the interests affected. Doubtless the case cited is exceptional, but it is offered only as suggestive. Quite aside from the restricted voting power, it is now generally recognized that in the case of any corporation whose stock is more or less widely distributed, the ownership of stock to the amount of 20 to 33 1/3 per cent of that outstanding by the directors or those with whom they habitually act or whom they, in fact, represent, suffices for all practical purposes to control.

Whether the centralization thus taking place is a natural development redounding to the interest of the public and therefore to be encouraged, or whether it is fraught with perils and likely to be attended with abuses, the consequences of which outweigh any good to be anticipated, is a subject that has evoked much discussion. The American people view with alarm any such development. They are prone to believe that the concentration of wealth means the concentration of political power. They associate transactions such as those implied in the movement with attempts at monopoly, though they realize that in most instances the operating companies absorbed are not competitive, each doing business within a limited field. They look for financing in connection with it as more or less questionable in character, and fear the issuance of securities in unreasonable amounts to pay dividends upon which rates will be demanded

upon the specious plea that such securities have passed into the hands of innocent holders. Similar mergers and reorganizations have given rise to tales of fabulous fortunes realized out of the sale of the properties involved or of the stock representing them or those brought into being in the new financing. The reflecting easily reach the conclusion that an equivalent loss must fall upon the consumers in the rates they pay or upon the investors in the securities which do not meet the roseate expectations with which they were acquired. Such tales are current in connection with the utility mergers of recent years. I hesitate to specify the almost unbelievable sums given to me on what seems reasonably reliable authority as having been realized by some of those on the inside in transactions of that character. So sedate a financier as Samuel Insull, the head of one of the great holding companies, in an address delivered in July, 1925, warned those undertaking new financing in public utilities against the issuance of securities upon inflated values. Other conservative managers of light and power plants have been equally outspoken.

On the other hand, the holding company is extolled with much justification as a device of high merit introducing economies that permit and lead to reductions in rates and consequent savings to the consumer. It is advanced that through it the little local company gets the benefit of supervision and direction by the highest engineering talent; that the stronger credit position of the holding company enables it to secure advances for the operating companies to install improved equipment on more favorable terms; that the needs of the various communities linked may be supplied by a lesser number of units; that plants, the heaviest draft on which is for night service, may be utilized to help out others supplying day service chiefly, and that in like manner the excess capacity of any plant may be utilized in the adjacent territory of another in which the equipment is unequal to the demand.

Just how far the economies thus rendered possible have been reflected in reduced rates to the consumer is quite another question.

INVESTMENT BANKING CONTROL ⁸

by P. M. O'Leary

IF ONE wants striking proof of the prevalence of big bankers on the boards of directors of American corporations, he can get it by taking Moody's *Manuals* dealing severally with Railroads, Public Utilities, and Industrials, and compiling from them a list of frequently recurring names. Not only will he be struck with the number of times that certain names recur, but upon taking one of the several available Investment Bankers' directories he will find most of the names duplicated there, either as directors or as officers of investment banking firms.

A perusal of the *Directory of Directors* for New York City, 1922

⁸ Adapted from an unpublished manuscript.

edition, reveals the following about the membership of certain well-known investment bankers on the boards of directors of American corporations:

J. P. MORGAN AND CO.

J. P. Morgan.

1. International Mercantile Marine.
2. Pullman Co.
3. U. S. Steel Corp.

Edw. Stotesbury.

1. Central R. R. Co. of N. Y.
2. Highland Coal Co.
3. Keystone Watch Case Co.
4. Lehigh and Hudson River Railway Co.
5. Lehigh and N. Y. R. R. Co.
6. Lehigh Valley R. R. Co.
7. Lehigh Valley R. R. Co. of N. Y.
8. Lehigh Valley Railway Co.
9. N. Y. and Middle Coal Fields R. R. Coal Co.
10. N. Y. Short Line R. R. Co.
11. Niagara Falls Power Co.
12. Philadelphia and Reading Railway Co., Chairman of the Board.
13. Reading Co.
14. Schuylkill and Lehigh Valley R. R.
15. Temple Iron Co.
16. United Gas Improvement Co.
17. Wyoming Valley Coal Co.

Charles Steele.

1. Atchison, Topeka and Santa Fé Railway Co.
2. Cerro De Pasco Copper Corporation.
3. Chicago, Great Western R. R. Co.
4. General Electric Co.
5. International Mercantile Marine.

William H. Porter

1. Père Marquette Railway Co.

Thomas W. Lamont.

1. Crowell Publishing Co.
2. International Harvester Co.
3. Lehigh Valley Coal Sales Co.
4. Southwestern Const. Co.

Horatio G. Lloyd.

1. American Gas Co.
2. Barber Asphalt Paving Co.

3. General Asphalt Co.
4. Lehigh Valley Coal Sales Co.
5. New Trinidad Lake Asphalt Co.
6. Philadelphia Rapid Transit Co.

Thomas Cochran.

1. Associated Dry Goods Co.
2. Braden Copper Co.
3. Braden Copper Mines, Inc.
4. Campbell Metal Window Co.
5. Copper River and Northwestern Railway.
6. Liberty Industrial Corporation.
7. Nevada Northern Railway Co.
8. Texas Gulf Sulphur Co.
9. Utah Copper Co.

KUHN, LOEB AND CO.

Felix M. Warburg.

1. Oregon, Washington R. R. and Navigation Co.

Otto H. Kahn.

1. Oregon Short Line R. R. Co.
2. Oregon-Washington R. R. and Navigation Co.
3. Union Pacific R. R. Co.

Mortimer L. Schiff.

1. American Railway Express Co.
2. Oregon Short Line R. R. Co.
3. Oregon-Washington R. R. and Nav. Co.
4. Pacific Oil Co.
5. Replogle Steel Co.
6. Union Pacific R. R. Co.
7. Wells, Fargo and Co.
8. Western Union Telegraph Co.

Jerome J. Hanover.

1. Hudson and Manhattan R. R. Co.
2. Mexican Central Railways Co., Ltd.
3. Mexican National Construction Co.
4. National Railways of Mexico.
5. National R. R. Co. of Mexico.
6. Westinghouse Elec. & Mfg. Co.

We are not trying to appraise this state of affairs ethically. Whether or not it is "good" or "bad" for the Republic is at present no concern of ours as students of the existing economic organization. As such, it is simply necessary that we understand its structure and how it operates.

To do this it is, needless to say, important to know who controls it. When we are told that the growing tendency for the public, more especially the laboring public, to purchase shares of stock in industrial enterprises, is bringing about "the only economic revolution that is worth a hill of beans," (however much a hill of beans is worth,) we do not want to be taken in. We want to know such things as the answers to the following questions: Is the stock that is being purchased by the public voting or non-voting? If it is voting stock, was its sale to the public unwritten by investment bankers, and if so, how much of it did they take as partial compensation for rendering the underwriting service? Has the issuing company recently issued any other securities, and, if so, who acquired them? If they were bonds, and if they were disposed of in the usual way, that is, through investment bankers, what changes in the personnel of the board of directors of the issuing company did the bankers insist upon before taking the bonds? A careful answering of these questions will often reveal that while ownership may be becoming more diffuse, control is still to a large degree in the hands of a few, and of that few, a large part may well be investment bankers who count any particular corporation as only one among a number that they finance.

One other fact exists as a result of the strategic position of investment bankers in the existing economic organization that merits our attention. The strategic advantage of this position is much enhanced by the fact that the number of investment banking firms which are able to finance very large projects is narrowly limited. The explanation for this dearth of big powerful investment banking firms is probably for the most part to be found in two facts: In the first place, the capital required to start a financial organization of such size is very large, and hence competition does not spring up easily; and secondly, the ability to run such important financial institutions is of a rather uncommon sort. We may not approve of all the activities of the Morgans, Lamonts, Davidsons, Kahns, Speyers, etc., but we cannot question their remarkable abilities in their respective fields.

When we add to the fact that the number of big investment banking firms is rather limited, the fact that among the firms that do exist there has been developed a code of "professional ethics" which has in many ways reduced the keenness of competition among them, we begin to see why it is they are in a position to do a good deal of dictating as to how various business concerns and even whole industries are to be run. Those who control the purse strings are in a position to dictate terms, if the strings are to be pulled and the purse opened. The larger American railroads require very large sums of money from time to time. New equipment may be needed or an extensive double-tracking program may seem desirable. In such cases, the need of raising twenty-five million dollars may not be at all unusual. To purchase and resell twenty-five million dollars' worth of securities is no small task, and only a very few investment bankers are in a position to do it even with the help they can get from other bankers through the formation of underwriting syndi-

cates as described above. As a result, most of the railroads of the country have "tied themselves up" with one of the three or four leading investment banking concerns, the bankers looking after all the financial needs of the railroad provided they are allowed to exercise a dominant voice in the details of the financing, and a very strong voice in the determination of how the road shall be run from day to day. The railroads have apparently felt that the surrender of control to New York bankers is not an excessive price to pay for the sort of financial protection that they receive in return, and it has been the exception for railroad securities to be sold to the banking firm that would bid the highest for them. Certain banking firms have been recognized as being "the bankers" for certain railroads. Recently the Interstate Commerce Commission, whipped up chiefly by Commissioner Eastman, has announced its intention of forcing railroads to call for competitive bidding when they have certain types of securities, more particularly Equipment Trust Certificates, to sell. To just what extent this will tend to break up well-solidified banker control remains to be seen. At the same time, it is well to keep in mind the recent reorganization of the Chicago, Milwaukee and St. Paul Railroad in which the big banking firm of Kuhn, Loeb and Co. has found the chief opposition to its domination in the smaller investment banking firm of Roosevelt and Sons, representing the junior security holders. It has been *investment bankers* who have been contending over the details of the reorganization of a railroad which is ostensibly the property of several thousand stockholders. We must not overlook these "critters" in our efforts to understand our economic organization, particularly when we are seeking to find who controls it and what are the consequences of such control.

QUESTIONS

1. How would you expect firms engaged in the following activities to be organized: (a) the practice of medicine? (b) the repairing of automobiles? (c) the manufacture of automobiles? (d) iron mining? (e) the retailing of groceries? (f) the manufacture of explosives?
2. What do the following mean: (a) no-par value stock? (b) corporate surplus? (c) bonus shares? (d) cumulative preferred stock? (e) limited liability? (f) mortgage bonds? (g) income bonds?
3. In a study made of new common stocks issued by 136 corporations between 1916 and 1921, it was found that 62 were no-par value shares. How do you explain the popularity of this kind of stock?
4. Why do the promoters of a corporation usually pay themselves for services rendered with stock rather than with cash or bonds? Is there a danger that they will pay themselves too much? How

much is "too much"? Who would be injured if they paid themselves too much?

5. A corporation formed with a capital of \$10,000 is forced to dissolve. Its outstanding debts are \$15,000. How much will be lost by (a) creditors, and (b) stockholders, if the assets yield \$10,000? \$15,000?
6. Why does a stock dividend generally reduce the market value of each share of stock? Why should the directors of a corporation ever desire to reduce the market value of the shares?
7. Why is a small corporation likely to have a larger proportion of its stockholders participate in policy formation than a large corporation? May this hamper quick decisions? Of what advantage is such participation to the corporation?
8. On June 30, 1920, the Standard Manufacturing Corporation has the following assets and liabilities: plant, equipment, and real estate, \$240,000; first mortgage bonds (a lien on its plant and real estate), \$120,000; current indebtedness, \$30,000; raw materials and finished goods, \$40,000; cash, \$5,000; accounts receivable, \$15,000. It has outstanding 500 shares of stock, par value \$100.
 - (a) How much is its surplus? (b) Draw up a balance sheet. (c) If the corporation should declare and pay a cash dividend of seven per cent, how would the balance sheet be affected? (d) If instead it should pay a stock dividend of fifty per cent, how would the balance sheet be affected? (e) If the market value of its stock should increase 10 points, how would this affect the surplus? (f) If the corporation should acquire 800 shares in another corporation, a controlling interest, by issuing and exchanging for shares in the proposed subsidiary additional shares of its own stock on a basis of one for one, how would the balance sheet be changed? Assume the shares of the subsidiary to be carried on the books at \$100 a share.
9. "The corporate form of business organization facilitates and stimulates savings." Why?

"The corporation encourages absentee ownership." How? Discuss the desirability of absentee ownership.
10. "The names of Gary, Ford, Edison, Schwab, du Pont, Morgan, and many other captains of industry reveal the extent to which industrial power is concentrated. Individual stockholders are impotent; the industrial chief is all powerful."
 - (a) Why is the individual stockholder impotent?
 - (b) Why does a large corporation demand an industrial chief?
 - (c) What elements of danger do you see in the concentration of industrial power?
 - (d) Point out how the "key man" is concerned with financial problems.

LIFE, LIBERTY AND PROPERTY—CHANGING CONCEPTIONS

AFTER contrasting economic conditions at the time the federal Constitution was adopted with those which prevail today, this chapter will discuss:

1. The rise of a business regime in which profit is the principal guide to economic activity.
2. Dissatisfaction of certain groups with a system of unrestricted private enterprise.
3. Efforts to equalize opportunities by legal restraints upon private enterprise and property accumulation.
4. The courts as a barrier to such restraints.
5. The argument that the government should keep "hands off."

FREQUENTLY, in detailing the blessings which attend human existence in the United States at present, it is asserted that even the humble toiler enjoys luxuries undreamed of by the most wealthy people in colonial times. It is noted that he often reads by electric light which outdazzles any candle ever made; he rides in a marvelous electric-propelled street car, or perhaps, in an automobile which makes even the finest horse seem a weak and futile thing; for a cent or two he buys a detailed account of the day's news events in all parts of the world without waiting for the laboriously slow transport of news by feeble sailing vessels; he is offered entertainment by animated pictures and by words and music picked out of the air which not even George Washington could command.

The weakness in such a comparison as this is that it overlooks the fact that such devices as radio, automobiles, and "movies" were unknown in colonial times. And being unknown, people had no way to realize how much they were missing. Their notions of what constituted a satisfactory livelihood were entirely different from such ideas today, and their calculations of whether or not they were "getting ahead in the world" were measured by the standards prevailing at the time. Whether these standards of a satisfactory life were better than those which exist today is a fruitful subject for debate, but that they were different is certain. It is no answer to a discontented individual today to say that he is much better off than his great-grandfather could possibly have been. What he wants is to be well off according to his own standards, and those are formed with reference to what he knows is obtainable now.

The mass and variety of mechanical devices for easing the physical problems of human existence in the United States today are unparalleled in the known history of the world. And the use of these devices is not restricted to a favored few; it is impressively general. But the fruits of our machine age have not been won without changes in our economic life which have apparently bred just as large a percentage of dissatisfied people as there were in the days before internal combustion engines, radio and porcelain bathrooms. One of the ways in which this dissatisfaction is reflected is in the continual political agitation to modify the system of "free private enterprise" and property protection inherited from past generations. It is with some of the reasons for this agitation and some of its results that this chapter will be primarily concerned.

In Chapter II an effort was made to give some conception of what is meant by a system of "free private enterprise." There was an explanation of the way in which the conditions prevailing after the War of Independence lent themselves to the establishment of a powerful bulwark for such a system by the adoption of the Constitution of the United States. The Constitution made sturdy legal provision for the protection of private property. It also provided that there should be no governmental action impairing the obligation of contracts, and there were numerous other provisions designed to protect a wide range of individual activities against governmental interference.

Under the economic system, buttressed by the federal Constitution, the governments, national and state, were authorized to exert certain definite controls over economic activity. The federal government, for example, was specifically authorized to regulate foreign commerce and commerce between the states, to coin money, and to build post roads. In the case of commerce regulation and money coinage, it seemed that to place trust in free private enterprise was to invite a confusion from which the country had long suffered. In the case of post roads, held essential to national safety and unity, there was uncertainty that private enterprise would assure the construction of such improvements in isolated districts. Consequently there was specific provision for governmental control of these and a few other activities. With the exemption of a very limited number of governmental activities, however, the presumption was that the economic life of the country would be carried on by private enterprise. The principal work of the government was to preserve order, provide for the defense of the country against invasion, and protect private property. Otherwise, it was assumed that individuals could look out for themselves.

At the time the federal Constitution was adopted the conditions were such that an able-bodied and courageous free man could generally

look out for himself and his family and battle his way to a satisfactory livelihood on his own initiative. It was, to be sure, no golden age so far as the problem of making a living was concerned. Negro slavery was beginning to flourish, and some white people were still bound in servitude by a system of indenture. Imprisonment for debt was general, and property qualifications for voters restricted the rights of many men to have a part in the political life of their communities. None the less, the abundant supply of cheap fertile land provided a general opportunity for free men to set up largely self-sufficient establishments and to "get ahead" independently.

In the period which has elapsed since the adoption of the Constitution the conditions which people confront in their efforts to make a living have been strikingly altered. Some of the major changes were outlined in preceding chapters. In one of these the coming of the machine and certain of its major effects on our economic life were discussed. It was noted that the machine has served to transform us from a nation of farmers, peculiarly capable of making a living by our own efforts, into a nation composed for the most part of highly specialized workers dependent upon the efforts of others for most of the things we require to patch out a livelihood. Mass machine production, dependent for its success upon minute specialization and far-flung markets, was seen to have become the prevailing order of the day. Consideration of the problem of financing such a system of production led us into a discussion of investment and commercial banking. We noted how the desirability of having a unified control of funds for investment in large-scale industrial and commercial enterprises led to the widespread development of the corporation, which as it solved one problem generated others. Production of highly specialized goods in anticipation that someone would be willing to pay for them was observed to give rise to an elaborate system of commercial banking, and we considered certain elements of that system.

Along with these enormous changes in the methods of carrying on economic life in the United States have come great changes in the status of different groups engaged in trying to solve the problem of making a living. At the close of the eighteenth century, the great majority of the people in this country who enjoyed political freedom were their own "bosses" or expected to be soon. If they did not own property they anticipated with some assurance the day when they would. While there were marked differences between the fortunes of different individuals and groups at that time, these differences were not so sharply defined as to lend themselves to a general feeling that there were definite economic classes apart from those fixed by the bonds of slavery. In the cities along the eastern seaboard there were

pretensions to social aristocracy based largely on wealth. While frequently of tremendous local importance, these were not taken very seriously by the great bulk of the population. In the frontier communities the rampant spirit of democracy was traceable in no small measure to the fact that there was a certain semblance of economic equality.

With the introduction of the machine and the accompanying development of large-scale factory production, this situation gradually changed. Such a system of production called for two very important things. One was the unified command of large sums of money or credit; the other was a body of workers to man the machines. Some people, perhaps because of greater thrift, perhaps because of better understanding of what was going on, gradually acquired ownership of the machines and other equipment required to carry on such a system. Others found themselves drifting into the position of factory workers, hired by the owners of the machines. As a result, there emerged two rather distinct economic groups, one owning the equipment for machine production and directing its use, and the other working as hired hands.

The distinction between these two groups was not clearly marked at first. Early factory owners hired their neighbors to work for them and the neighbors did so because wage work, temporarily at least, appeared more advantageous than farming. They felt secure in their economic position because, as previously noted, there was an abundant supply of free land they could turn to for economic independence. But gradually the land was taken up; someone claimed ownership of all that could be exploited successfully. Gradually the workers also found that their continual application to one specialized job had increased the difficulties of turning to any other occupation. The life job ahead of most of them became that of working for wages under the direction of those who had acquired property rights to industrial equipment.

Along with a distinct class of wage workers there emerged another group of about the same economic status, but generally differentiated by the fact that they were supposed to wear white collars and possibly also because they were usually paid by check instead of cash in a pay envelope. As the machine process called for an increasing number of specialized industrial wage workers, it called for an army of clerical workers to keep track of production and sales. These clerical workers, like the industrial wage workers, do the bidding of those who have acquired ownership of the equipment to carry on production, and their salaries are simply wages described by what seems to them a more genteel term.

Those who control the use of the equipment necessary to carry on modern production have come to be guided by different considerations from those which prevailed when the nation was composed largely of pioneer farmers. This change can best be illustrated by the contrast between the situation of the isolated frontier farmer in colonial times and that of a typical business corporation of today. The pioneer farmer conceived his job to be to produce as much as he possibly could with the resources available. Dependent on his own labors, his prosperity was measured by his ability to make his land yield bountifully. Today a corporation which manufactures any product, let us say leather belting, does not measure its success by the amount of leather belting it is able to turn out. The stockholders are not interested in dividends of leather belting. What they want is money to use as they see fit. Consequently, the aim of the corporation becomes not that of breaking records in leather-belt production but of breaking records in making profits, that is, in selling its belt output for the greatest sum possible above what it costs to produce it. If the belting business is good that sum may be realized by selling much belting; if it is poor it may be most advantageous from the standpoint of profit making to close the plant or plants entirely. Where the frontier farmer was primarily interested in output, the modern corporation is interested chiefly in profits. Large output and large profits may go hand in hand. They may not. The point—an absolutely vital one to the understanding of modern economic life—is that when they do not go hand in hand profit is the dominant consideration, as explained in the following statements.

BUSINESS AND INDUSTRY ¹

by Wesley C. Mitchell

MONEY economy has attained its fullest development in our own day under the influence of machine production. Its essential feature is that economic activity takes the form of making and spending money incomes. Instead of producing the goods their families require, men "make money," and with their money incomes buy for their own use goods made by unknown hands. The economic comfort or misery of the modern family, accordingly, depends not upon its efficiency in making useful goods and its skill in husbanding supplies, but upon its ability to command an adequate money income and upon its pecuniary thrift. Even in years when crops are short and mills are idle, the family with money need not go cold or hungry. But the family without money leads a wretched life even in years of abundance. Always the elaborate co-operative

¹ Adapted from *Business Cycles*, copyright by the author, 1913. Published by the University of California Press, pages 21-26.

process by which a nation's myriad workers provide for the meeting of each other's needs is brought into precarious dependence upon the factors which determine the prospects of making money.

For purposes of making money men have gradually developed the modern business enterprise—an organization which seeks to realize pecuniary profits upon an investment of capital by a series of contracts for the purchase and sale of goods in terms of money. Business enterprises of the full-fledged type have come to occupy almost the whole field in finance, wholesale trade, railway and marine transportation. They dominate mining, lumbering and manufacturing. In retail trade they play an important rôle, and in agriculture they have secured a foothold.

A business enterprise may participate in the work of providing the nation with useful goods, or it may not. For there are divers ways of making money which are positively detrimental to future welfare. But it is more important that even the enterprises which are making useful goods do so only so far as the operation is expected to serve the primary business end of making profits. Any other attitude is impracticable under the system of money economy. For the man who allowed his humanitarian interests to control his business policy would soon be forced out of business. From the business standpoint the useful goods produced are merely by-products of the process of earning dividends. A clear appreciation of this fact is necessary to an understanding of the relations between industry, commerce, and business. For the well-being of the community, efficient industry and commerce are vastly more important than successful money-making. A panic which did not interrupt the making and distributing of wares desired by the community would be no great disaster. But the whip-hand belongs to business. In practice, industry and commerce are thoroughly subordinated to it. The ebb and flow of contemporary economic activity is primarily concerned with the phenomena of business traffic—that is, of money-making.

THE BUSINESS VIEW OF WASTE²

by Alfred P. Dennis

THE economic and business world knows no waste unless the saving can be accomplished at a profit. What cannot be salvaged at a profit is not waste in the economic sense. As well talk of the waste of atmospheric nitrogen. If nitrogen through the Haber or other ingenious process can be extracted from the air and put on the market at a profit—well and good. If, however, it costs more to fix atmospheric nitrogen than it does to grow it on the nodules of leguminous plants or import it from Chile, it is idle to talk of letting atmospheric nitrogen go to waste.

It won't do to mix sentiment with business. The sentimental revulsion of seeing two-thirds the cubic contents of a felled tree going to waste in the forest is one thing—but from a business standpoint no waste whatever

² Adapted from "The Relativity of Waste," *Nation's Business*, January, 1925.

may be involved. You may point out to a North Carolina lumber-man that he is leaving enough wood on the ground in the shape of limbs, slabs, edgings and sawdust to furnish a good-sized city with fuel. But you may load some fifteen cords of this fuel in a box car, dispatch it to a northern city and find no customer willing to take over the consignment at the cost of freight.

. . .

The fact that many phases of our economic life have come to be dominated by a business regime in which "there are divers ways of making money which are positively detrimental to the public welfare" would probably occasion no resounding protest if all people engaged in trying to make a living under such a system felt that they had equal chances to share in the profits. There is, however, no such unanimity of opinion. There is a sustained volume of complaint against profit as a guide to economic activity, on the ground that opportunities to share in the advantages of such a system are very unevenly distributed because of wide discrepancies in the economic power of different individuals and groups.

Some of the reasons underlying the contention that economic power in the United States is not equally distributed have already been mentioned. Others are contained in the following selections. The first, by Senator Shepard of Texas, offers an explanation of why he thinks economic opportunities in the United States are no longer equal. It is followed by an indication of some of the contrasts in incomes reported by the federal government, and then a suggestion of what these contrasts may mean in terms of individual opportunities.

THE FRONTIER AND ECONOMIC DEMOCRACY³

by Morris Shepard

TO THE founders of this Republic the first and most important of all human rights was life, and life to them meant ownership of home and land and shop and mill and all the implements of one's calling. It was the vast area of cheap and fertile land available to early American settlers that made individual ownership possible on so large a scale, the ownership which was the economic basis of American individualism and democracy. Implements and processes by which the land was cultivated and finished articles made locally from local material were crude and primitive and inefficient, measured by modern standards, but they were employed by all alike, and an abundance of commodities essential to subsistence and comfort in accordance with the standards of that day was secured. The United States of the first ninety or hundred years after the Declaration

³ From the *Congressional Record*, July 2, 1926.

of Independence realized as to most of its territory and population the principles of liberty, equality, fraternity, to a degree the earth had never seen before and may never see again. During all that time, whenever population began to crowd the land, or whenever conditions became oppressive in the towns and cities which had begun to grow and multiply, the fresh regions to the west offered new opportunity and hope.

Shortly after the Civil War, began on a nation-wide scale that remarkable transformation marking the advent throughout our country of the mechanical age, an age characterized chiefly by the adoption of machine power in nearly all our principal industries. While manufacturing by mechanical means had already found a footing in certain sections long before the Civil War, and steam transportation by land and water had appeared, the country was still predominantly agricultural when the Civil War began. In fact, about four-fifths of the American people were still living on the farm throughout that conflict. The prevailing unit of our civilization was still the self-sustaining community, obtaining and carrying into finished form within or near its limits food, clothing, shelter, and other articles of common use; the self-sustaining community with individual ownership of home and land and shop and store, or the definite outlook therefor, the general rule—with the public land frontier still symbolizing hope and opportunity.

In 1920, a little more than half a century after the termination of the Civil War, a majority of the American people were living in cities of over 2,500 inhabitants. It is figured that the number living on farms is now about a third of the total population—about a fourth of the total number of all workers in the gainful occupations. Since 1910 the value of manufactured products has for the first time exceeded that of agricultural products, whereas in 1850 our farmers produced nearly three times as much in value as all our factories and mines combined. We have been transformed, therefore, from a nation predominantly agricultural, a nation of home owners and business owners in 1860, with four-fifths of our people on the farms, to a nation predominantly commercial and industrial in 1920, with two-thirds of our people in cities and towns and factory districts, and with ownership of home and shop and implements rapidly disappearing, largely gone. The transfer of workers from households and small shops into factories, which had occurred in small proportion on the Atlantic seaboard in the early decades of the nineteenth century, was repeated for almost the entire country after 1865, as well as the condition of ownership—small groups of capitalists on the one side, controlling large aggregations of machinery, utilizing for their own profit scientific knowledge that had made power machinery possible—masses of employees on the other, their old implements and processes obsolete, crowded into the tenements near the factories—changed almost by magic from owners into hired workers.

The ownership and control of industry passed into the hands of a few masters whose wealth began to mount with an astounding suddenness into

millions, tens of millions, hundreds of millions, while the laboring masses, reduced from proprietors to employees, followed by younger generations who were strangers to the sensation of ownership, thronged the factories to plead in desperate competition for the job that meant little more than a bare subsistence. The power of economic life and death over the manual toilers was vested by these new conditions in those who acquired the new machinery and financed its establishment on a basis of larger and ever larger concentration. By virtue of their superior credit resources, ability to control the volume and the distribution of the finished product, the new masters obtained a similar power over the farmer who, under the new circumstances, was compelled to sell to them his raw materials on virtually their own terms. The inevitable result has been an ever-increasing exodus from farm to city.

And so it has come about that the age that, since the Civil War, has witnessed for this country the mightiest material progress ever known, the creation of vaster wealth for this nation than the world has ever before seen, the age in which mechanical power and corporate organization have become the chief instruments of civilized existence, has also seen a concentration of riches and power in a small owning and controlling class, the conversion of by far the larger portion of the American people from home owners, landowners, business owners, shop owners, with the substantials of existence at their command into renters and hired workers struggling for subsistence almost at the poverty line. It is true that the industrial revolution has resulted in the creation of many comforts and conveniences, forms of recreation and amusement, facilities for information, travel, and communication never before within the reach of the average individual. But it is equally true that the average income of the individual at the head of the average household is so relatively small as to provide with greatest difficulty the basic needs of life, so small that when illness or some similar emergency overtakes the family the situation is full of tragedy. The cost of living continues to rise, having already reached a point almost prohibitive, bearing most heavily on the underpaid masses. The last census showed that of the 24,350,000 families in the United States nearly 13,000,000—over half—are in rented homes, 4,000,000 are in mortgaged homes, while only six and a half millions, about one-fourth of the total, are in unencumbered homes of their own. It showed, further, that of the 20,000,000 boys and girls of school age, not more than 50 per cent complete the sixth grade of the public school, not more than 10 per cent complete the high school, while less than 5 per cent obtain complete college educations, liberal or technical. So inexorably are they driven by economic pressure into the ranks of toil that they cannot take due advantage of free education.

Evidently our supreme problem 150 years after the declaration of our political freedom is the restoration of the economic independence of the average citizen, which was one of the foundations of our political independence.

AT THE UPPER END OF THE INCOME SCALE ⁴

Income classes		Number of returns	Net income
\$ 50,000 to \$ 60,000	.....	7,868	\$429,704,060
60,000 to 70,000	.....	5,108	330,006,749
70,000 to 80,000	.....	3,586	268,229,241
80,000 to 90,000	.....	2,507	212,348,581
90,000 to 100,000	.....	1,889	178,659,654
100,000 to 150,000	.....	4,759	572,859,982
150,000 to 200,000	.....	1,758	302,507,030
200,000 to 250,000	.....	928	205,927,937
250,000 to 300,000	.....	537	146,865,250
300,000 to 400,000	.....	562	192,759,080
400,000 to 500,000	.....	330	147,014,577
500,000 to 750,000	.....	340	207,431,183
750,000 to 1,000,000	.....	139	119,936,340
1,000,000 to 1,500,000	.....	104	128,442,670
1,500,000 to 2,000,000	.....	43	73,216,814
2,000,000 to 3,000,000	.....	29	69,015,571
3,000,000 to 4,000,000	.....	15	51,004,371
4,000,000 to 5,000,000	.....	9	39,394,563
5,000,000 and over	.....	7	61,382,863

AT THE LOWER END OF THE INCOME SCALE ⁵

THERE exist in this country large numbers of common laborers whose earnings, under the best of conditions, are far below the requirements of healthful living and good citizenship. This fact has been given forceful expression in recent statements by the President of the United States and by the Secretary of Labor. Speaking at Hammond, Ind., June 14, 1927, President Coolidge said: "While we have reached the highest point in material prosperity ever achieved, there is a considerable class of unskilled workers who have not come into full participation in the wealth of the Nation." Secretary Davis, in an address at Washington on June 22, estimated that there are several millions of unskilled laborers in the United States whose wages are so low as to constitute a moral and economic misfortune:

"If these underpaid workers were few in number, and existed only in scattered instances, the inequality would be less great. But if we count them up, if we think of those in all our industries who may lack mechanical skill but who, nevertheless, shoulder the heavy weights and do the roughest work, we find a great part of American industry shot through with these

⁴ From *Statistics of Income for 1925*, published by the United States Treasury Department.

⁵ From *The Monthly Labor Review*, U. S. Department of Labor, August, 1927.

unfortunates. It is not an exaggeration to say that we have some millions of these hard-worked but underpaid Americans. Taken together with their families and their dependents, I would venture to say we have among us from ten to fifteen millions of people who do not share as they should in the prosperity enjoyed by the rest of us. Morally, economically, and on the grounds of simple humanity, this inequality should not be allowed to exist in this richest nation of history."

No complete data exist regarding the actual earnings of unskilled labor of all classes. For certain industries, however, studies by the Bureau of Labor Statistics and other authoritative agencies give a reasonably accurate picture of the earning capacity of their unskilled employees. These data are summarized in the table below. Except in the case of coal mining and railroads, the earnings are expressed in terms of full-time weekly earnings, that is to say, the amount the average laborer would earn in a week if his employing establishment was operating full time and he lost no time at all through unemployment, sickness, accident, or other causes. The figures, therefore, may be taken as extremely conservative, representing maximum possible earnings and thus being in excess of the actual amount which the average worker receives and must live upon. In the case of coal mining and the railroads, the information is reported only in the form of actual earnings.

The data given relate solely to males, and, while age classification is not available, it is known that common labor work is almost invariably of a type to demand an adult's strength. Moreover, the term "common labor" or "unskilled labor" is rather elastic. In general, it implies work requiring little or no previous training, but very often the work does demand considerable intelligence and often involves a high degree of responsibility. Not infrequently, indeed, the term "common labor" means nothing more than the lowest-paid labor in the particular establishment or industry.

Of the industries for which data can be given, railroad laborers have the lowest earnings, the average for 1926 being only \$17 per week. This is a large group of employees, numbering well over 200,000. The lumber industry ranks next lowest, average weekly earnings for all districts being only \$17.77, and for the lowest-paid district only \$10.48. In bituminous coal mining, owing to the irregularity of operation, over which the individual worker has no control, weekly earnings for all districts averaged only \$22.78 for inside laborers and \$23.58 for outside laborers, and in the lowest district were only \$10.34.

Only in the case of anthracite coal mining, foundries, and motor-vehicle manufacture did the weekly earnings for all districts average more than \$25 per week, and even in the second and third of these three industries the average earnings in the lowest paid districts were well below \$25, being indeed as low as \$14.37 in the case of foundries. Moreover, it is to be emphasized that in the case of all the manufacturing industries listed, the earnings reported are full-time earnings and thus in excess of the actual earnings. Full-time earnings can only be obtained by those who are so

fortunate as to be working for an establishment which operates full time and who lose no time from sickness, accident, or other misfortune.

The figures here presented indicate clearly that there are groups of laborers in many industries who are receiving very inadequate wages. This is evident even though the difficulty is recognized of determining just what is an adequate living wage. Anyone with experience of life and of the present-day cost of living must recognize that many, and probably most, of the men included in the surveys here referred to were not receiving sufficient for the maintenance of a family at a wholesome standard of living.

AVERAGE WEEKLY EARNINGS OF MALE COMMON LABORERS IN VARIOUS INDUSTRIES AND DISTRICTS

	Average full-time hours per week	Average full-time earnings per week *		
		Lowest district	Highest district	All districts
Lumber (1925).....	57.5	\$10.48	\$25.27	\$17.77
Slaughtering and meat packing:				
All departments (1925).....	50.2	17.04	25.34	21.35
Woolen and worsted goods manufacturing (1926).....	49.4	20.77	27.82	21.98
Machine shops (1925).....	50.6	11.78	25.32	23.07
Paper box-board manufacturing (1925).....	56.7	13.37	28.05	23.99
Blast furnaces (1926).....	62.4	16.14	27.72	24.34
Foundries (1925).....	52.5	14.37	28.67	25.25
Motor vehicle manufacturing (1925).....	50.4	24.02	30.26	28.73
Bituminous coal mining (1926):				
Inside laborers.....		10.34	33.90	22.78
Outside laborers.....		11.03	37.69	23.58
Anthracite coal mining (1924):				
Inside laborers.....				29.42
Outside laborers.....				29.45
Metalliferous mines, underground (1924).....	52.1	19.80	27.73	22.04
Railroad: Track laborers (1926).....	47.5			17.00

* Except in the case of coal mining and railroads, where the only available data are for actual earnings and actual hours.

COMPARING OPPORTUNITIES⁶

by Frank Morrison

You know that people have different ideas of what democracy is. I was coming from Chicago to Washington about ten years ago and there was a young man on the train. He was one of the finest looking young Americans I had ever seen, what you would call an ideal young American. I heard him say to a group of men: "Any young man can become rich if he wants to. I was born in Virginia; I went to the university; I then went to New York in a bank, and then to Oklahoma, and I am worth \$75,000. Nobody ever gave me a cent. Anyone can become rich if he wants to." I turned around and said, "Well, my friend, I just heard what you said, and I believe that you believe you are telling the truth, but I would like to ask you this question: Did you go to a common school?" He said, "I certainly did." Then I asked him, "Did you go to the high school?" He said, "Yes." "Did you go to the university?" "Yes." "Four years?" "Yes." "What did it cost your father?" He said, "I was frugal; I was not a spendthrift, and it cost him about \$700 a year." Then I said, "You went to New York and worked in a bank and your father paid most of your expenses?" He said, "Yes, sir. Most any young man would be glad to work in a bank in New York for three years for the experience." Then I said, "You went to Oklahoma and your father was rich, and he said, 'Treat him right.' " "Yes," he said, "but nobody ever gave me a cent." Then I said, "I want to ask you this question: Can the boy that went into the textile mill in your state when 9 or 10 years of age and who is now at your age—29—could he become rich?" He said, "Of course, I did not mean that." Then I said, "You meant any young man who graduated from common school, high school, and a university, and received a vocational training, and whose father was wealthy could become rich. We are not interested in those young men; they represent but 2 per cent of our young men. We are interested in the 98 per cent, and we will never rest satisfied until the 98 per cent have had the same opportunity to receive a common-school education, a high-school education, and a university training as you have had." That is my idea of democracy. That is my idea of equal opportunity.

. . .

The widespread conviction held by some groups that there is no longer substantial equality of opportunity in the United States leads to the proposal of at least three remedies. The most extreme of these is the abolition of the present profit-guided system of private enterprise and the substitution of something else such as socialism, which will be discussed in a subsequent chapter. Another remedy is that of accepting the system as it is and organizing otherwise impotent individuals into powerful coöperative groups to balance economic power

⁶ From a Labor Day speech (date unknown), reprinted with the author's permission.

concentrated in corporations and individuals. This is the program of many trade unions which, together with plans of farmers and other groups to improve their economic status, will be discussed in some detail in later chapters. A third remedy, with which we are primarily concerned here, is that of organizing along political lines to seek legal modification of our economic system.

The economic system at the time the federal Constitution was adopted was predominantly one of "free private enterprise" of a type already described. Under such a system, as we have noted, the population of the country was gradually sifted into fairly clear-cut economic groups, some owning and directing the use of productive equipment, others doing their bidding. During this sifting process, some of those who were not faring well slowly evolved the idea that a system of unrestricted private enterprise was not working in their favor. With the growth of a distinct wage-earning class, the creation of millionaires and even billionaires, and the enormous concentration of economic power in great corporations, they came to suspect that such a system was more advantageous to large property owners and those controlling great business enterprises than to those who depended for their living simply upon their labor.

These malcontents were assured that they were greatly mistaken, and that although they might be cast in the rôle of manual laborers, their interests, none the less, were thoroughly protected by a system of free private enterprise. It was explained that if their employers did not treat them fairly they could quit and give their services to another employer who would be forced by the competition of employers for good workmen to pay the highest possible wages that his enterprise could stand and still keep going. They were told that in spending their wages they would be assured of the best possible products at the lowest possible prices because storekeepers would be straining every nerve to outdo their rivals lest they be forced out of business. In addition to the fact that the workings of free private enterprise assured them a strictly square deal as laborers, their attention was called to the ever-present possibility that they might be drafted for executive positions, affording abundant opportunities to acquire both personal distinction and property.

This assurance of a bountiful array of individual opportunities was not convincing to a great many people. They took the position that when the United States was a pioneer country it was reasonable enough to let success or failure depend upon individual initiative, but that such a system would not work satisfactorily where there were enormous contrasts in the economic power of different individuals and groups. The business of making a living, they said, had become some-

thing like a race in which some entrants had spiked shoes and a flying start, and others had weights tied to their feet.

The malcontents conceived as one remedy for their grievances the adoption of laws which would serve to balance up opportunities. As a result, there has been a continual drive in the United States during recent years to modify the legal rules governing property rights and economic activity. In this drive, which still continues, two main lines of governmental restriction upon freedom of enterprise and property holding are advocated. One is the enactment of income and inheritance tax laws designed to equalize the economic conditions under which individuals set about making their livings. The other is the enactment of laws regulating economic activity in such a way as to prevent those having great economic power from riding rough shod over those who have little.

In support of the program of those who advocate laws to level off large incomes and property holdings it is argued that a system of free private enterprise, with economic activity guided by the pursuit of profit, would work little hardship if everyone participating had about the same amount of property; if, to follow the foot-race analogy, everyone started from scratch. But with some people having enormous economic power through the control of property and others having none except that of their individual labor, it is argued that those without property are almost certain to fare badly in an unrestricted contest. Consequently the government is asked to equalize individual economic opportunities by taking a progressively larger share of large incomes and a graduated share of the property which wealthy people own at the time of their deaths. The extreme advocates of this method of equalizing economic opportunities would have an inheritance tax take all property above an amount necessary to support widows and minor children, and a graduated income tax transfer to the state all of large incomes above a certain amount.

Apart from efforts to secure the enactment of rigorous income and inheritance tax laws, there is also a continuing effort to regulate the process by which people make their living. People backing this endeavor may either favor or oppose income and inheritance taxes. Their contention is that in the contest to make a living under present conditions, unrestricted private enterprise often leads to exploitation of those having little economic power. What chance, they ask, has an immigrant laborer, spending most of his waking hours feeding a blast furnace, to obtain a satisfactory livelihood as a result of his own initiative? He is a trivial unit in a vast army, a person of no individual consequence to his employers, who may live thousands of miles away. What if he demands more pay and threatens to quit, they ask. Their

answer is that his individual quitting is of virtually no importance to his employers, and if he quits what is he to do? There is no more free land to which he can retreat, and other jobs of blast-furnace feeding would find him in the same situation. What, they ask, does it avail an individual farmer, located on the only railroad within a hundred miles, to threaten to refuse to patronize the road, a part of a billion-dollar system, if it does not lower its freight rates? What is the consequence, they inquire, of the indignant refusal of a tobacco farmer to sell his five hundred pounds of leaf to a concern dealing annually in millions of pounds, because he thinks the concern is treating him unfairly? What can he do with the tobacco unless he takes the price offered? The answer given to these and a host of similar questions is that the present concentration of economic power provides many instances where unrestricted economic activity leads to exploitation. To correct this situation it is urged that the state pass restrictive laws.

Among those who think that the government should step in and balance economic opportunities, there is great disagreement about just how this should be accomplished. Some think that a one-hundred-percent inheritance tax would so equalize opportunities that the government would need to do nothing else. There are others, perhaps bitterly opposed to the inheritance tax, who think that all that is necessary is a national law requiring the payment of a certain minimum wage. There are still others who think that if corporations were limited in size and not allowed to dominate any particular field, their struggles with one another would protect those dealing with them.

In spite of the disagreements between individuals and groups about how the state should control economic activity, there has been enough agreement among dissatisfied groups to make possible an effective appeal for a wide range of restrictive laws. Under pressure of what has seemed to be the popular will, both the state legislatures and the national Congress have progressively curbed free private enterprise and property holdings. There is a national law taking a graduated share of large incomes, and many states have similar measures. The federal government takes a graduated share of property transferred at death, and many states do likewise. None of these laws goes to the extent of taking one hundred per cent of large incomes and property transferred at death, but they represent a major interference with such rights of private property as those which prevailed during the early days of the republic.

In restraint of private enterprise there is an enormous variety of state and federal laws. On the theory that wage workers are not able to obtain a satisfactory livelihood by their individual initiative, there are both state and federal laws limiting the hours of their employ-

ment and prescribing the working conditions provided in factories. And because women and children employed in industry are presumed to be particularly impotent in furthering their own interests, there are many special laws for their protection.

Because unrestrained private enterprise has tended to lead to the creation of enormous industrial corporations which swallow their competitors, or agreements among competitors to control their output in such a way as to obtain large profits, the states and federal government have passed an extensive array of antitrust laws. These laws seek to prevent the creation of monopolies and combinations among concerns engaged in the same line of business.

In the case of such enterprises as railroads, street-car systems, and electric light and power companies, monopoly has been recognized as essential to good service, but lest the consumers of such service be exploited, elaborate systems of government regulation have been devised. These include regulation of the quality of the service rendered, and of the rates charged. And, in the case of railroads, the earnings allowed to the transportation companies are limited by law.

On the ground that consumers, in many instances, have no sure way of telling the quality of what they are buying, federal laws have been passed requiring that the contents of certain foodstuffs be clearly indicated. The states have built up elaborate systems of regulation designed to protect the quality of professional services, such as those of doctors and lawyers.

In some cases, particularly in the provision of widely used commodities and services such as water, gas, electricity, and street-car service, local governments have gone beyond regulation to public ownership and operation.

From this brief indication of a few of the present governmental limitations upon free private enterprise, it is apparent that the legal rules under which people endeavor to make a living in the United States today are much different from those which prevailed one hundred and fifty or even fifty years ago. Instead of a system of free private enterprise and unrestricted property owning, we find a system greatly modified by government interference.

This change in the legal rules governing our economic life has not been accomplished without fierce resistance. As some have found themselves working at a disadvantage under the prevailing legal rules, others have found it possible to protect their interests adequately without governmental intervention. Consequently, almost all restrictive moves have been opposed by those who thought they would suffer in consequence.

In the legislatures where restrictive laws have been proposed, there

have always been two factions, one urging that the legislature do nothing to curb the scope of individual initiative and property rights, and the other urging added restrictions to take account of changed conditions. The personnel of the opposing factions, of course, is not always the same. A manufacturer of blankets, for example, may be bitterly opposed to a law requiring specific statements as to the wool content of blankets at the same time that he is urging more drastic legislation to insure purity in the food he consumes. A farmer may be earnestly advocating more comprehensive regulation of railroads and electric-light companies while insisting that a law requiring standard containers for certain of his products is an unwarranted governmental interference.

As a general rule, subject to the notable exception of the tariff, which will be discussed in a subsequent chapter, it is true that those most consistently opposed to governmental limitation upon private enterprise and property are those who, by virtue of a strategic business position or large property holdings, are quite capable of taking care of themselves in a free-for-all race. And those most regularly found supporting additional restrictions are those who wish to improve a precarious economic position by the adoption of such measures.

The general argument of those favoring governmental interference to take account of changing conditions has already been sketched. The argument of their opponents is based on two major contentions. One of these, directed against governmental interference with individual property holdings, is that the very foundation of our government is the right of individuals to be secure in the enjoyment of such property as they are able to acquire. The other argument is that the law of supply and demand can be trusted to protect everyone engaged in making a living.

When legislation restricting private enterprise and property holdings is proposed, the opponents of restriction first attempt to convince legislators that it is impolitic to interfere with the time-honored system of free private enterprise. Failing in this, they frequently appeal to the courts on the ground that the legislation deprives certain people of their constitutional rights. As explained in Chapter II, the governmental system devised by the framers of the Constitution (the arrangement is much the same in the states) was a system of checks and balances in which the federal courts, by their interpretation of the Constitution, would act as a check on the legislative branch of the government.

Under such an arrangement, those opposing restrictive legislation have two chances to defeat it; first in the legislatures, and then in the courts by having it declared unconstitutional. This means that vir-

tually all legislation deemed an interference with private enterprise is eventually reviewed by the courts. If the United States Supreme Court, having ultimate authority to interpret the federal Constitution, decides that either state or federal legislation violates rights guaranteed by it, the legislation is rejected.

In the Constitution it is provided by the Fifth Amendment, which applies to the federal government, that "no person shall . . . be deprived of life, liberty, or property without due process of law." The Fourteenth Amendment of the same document provides that "no state shall deprive any person of life, liberty or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." This term "due process of law" might be construed to mean that it is necessary to fulfill all of the prescribed legal forms, such as having the legislation passed in the regular routine of business, properly recorded, *et cetera*. As interpreted by the United States Supreme Court, however, compliance with "due process of law" generally means that the legislation must not be flagrantly offensive to the economic, political and social views of a majority of the nine Justices.

The definition of such words as "liberty," which appears in the amendments quoted, inevitably involves a large measure of personal opinion. A person thinking of liberty in one sense might regard a law preventing children from working sixteen hours a day in cotton mills as a restriction upon liberty. Another person, thinking of the danger to the lives of the children resulting from no regulation of their employment, might think their liberty to work sixteen hours a day a species of slavery.

The idea of property is also shifting, varying from time to time and from person to person. The question "what is property?" addressed to an eighteenth-century American farmer would probably have brought a recital of such things as land, livestock, plows, houses and clothes. He might possibly have mentioned Revolutionary War bonds and land mortgages, but it is certain that his idea of property, like that of most people of the time, would have been limited primarily to physical equipment. Since that time, however, the idea of property, as defined by the courts, has been greatly expanded. It includes such mysterious things as "good will," and the expectation of profits. Many concerns, from long-continued success in business, acquire a degree of public favor which contributes to their further success. This favor, or good will, is intangible, but courts have held that it is property. An established and going business concern expects that it will make profits in the future as it has in the past. This expectation of

profits is not tangible, but it has been held by the courts to be property.

There are many provisions in the Constitution whose interpretation depends upon what the Justices of the United States Supreme Court think they ought to mean. And upon the Court's opinion rests the acceptance or rejection of much state and federal legislation designed to modify the existing legal rules governing economic activity. How the Supreme Court, through its interpretation of the Constitution, acts as a check upon legislation is indicated by the following excerpts from opinions by that court, one of them declaring a federal law unconstitutional, the other rejecting a state law. That the personal views of the Justices weigh heavily in these decisions is indicated by the dissenting opinions in each case.

ADKINS VS. CHILDREN'S HOSPITAL.⁷

From the opinion of the Court, delivered by Mr. Justice Sutherland:

THE question presented for determination is the constitutionality of the Act of September 19, 1918, providing for the fixing of minimum wages for women and children in the District of Columbia. . . .

It is declared that the purposes of the Act are "to protect the women and minors of the District from conditions detrimental to their health and morals, resulting from wages which are inadequate to maintain decent standards of living. . . ."

The judicial duty of passing upon the constitutionality of an Act of Congress is one of great gravity and delicacy. . . . But if by clear and indubitable demonstration a statute be opposed to the Constitution we have no choice but to say so. The Constitution, by its own terms, is the supreme law of the land, emanating from the people, the repository of ultimate sovereignty under our form of government. A congressional statute, on the other hand, is the act of an agency of this sovereign authority and if it conflict with the Constitution must fall. . . .

The statute now under consideration is attacked upon the ground that it authorizes an unconstitutional interference with the freedom of contract included within the guarantees of the due process clause of the Fifth Amendment. That the right to contract about one's affairs is a part of the liberty of the individual protected by this clause, is settled by the decisions of this Court and is no longer open to question. . . . Within this liberty are contracts of employment of labor. In making such contracts, generally speaking, the parties have an equal right to obtain from each other the best terms they can as a result of private bargaining. . . .

There is, of course, no such thing as absolute freedom of contract. It is subject to a great variety of restraints. But freedom of contract

⁷ Adapted from opinions of United States Supreme Court Justices in the Case of *Adkins vs. Children's Hospital*; 261 U. S. 525; April 9, 1923.

is, nevertheless, the general rule, and restraint the exception; and the exercise of legislative authority to abridge it can be justified only by the existence of exceptional circumstances. . . .

The feature of this statute which, perhaps more than any other, puts upon it the stamp of invalidity is that it exacts from the employer an arbitrary payment for a purpose and upon a basis having no causal connection with his business, or the contract or the work the employee engages to do. The declared basis is not the value of the service rendered, but the extraneous circumstance that the employee needs to get a prescribed sum of money to insure her subsistence, health and morals. The ethical right of every worker, man or woman, to a living wage may be conceded. . . . With that principle and with every legitimate effort to realize it in fact, no one can quarrel; but the fallacy of the proposed method of attaining it is that it assumes that every employer is bound at all events to furnish it. . . . The necessities of the employee are alone considered and these arise outside of employment, are the same when there is no employment, and as great in one occupation as another. Certainly the employer, by paying a fair equivalent for the service rendered, though not sufficient to support the employee, has neither caused nor contributed to her poverty. On the contrary, to the extent of what he pays he has relieved it. In principle, there can be no difference between the case of selling labor and the case of selling goods. If one goes to the butcher, the baker, or grocer to buy food, he is morally entitled to obtain the worth of his money but he is entitled to no more. If what he gets is worth what he pays he is not justified in demanding more simply because he needs more; and the shopkeeper, having dealt fairly and honestly in that transaction, is not concerned in any peculiar sense with the question of his customer's necessities. . . . A statute which prescribes payment . . . solely with relation to circumstances apart from the contract of employment, the business affected by it and the work done under it, is so clearly the product of a naked, arbitrary exercise of power that it cannot be allowed to stand under the Constitution of the United States.

From the dissenting opinion of Mr. Chief Justice Taft in which Mr. Justice Sanford concurred:

I regret much to differ from the Court.

Legislatures in limiting the freedom of contract between employee and employer by a minimum wage proceed on the assumption that employees, in the class receiving least pay, are not upon a full level of equality of choice with their employer and in their necessitous circumstances are prone to accept pretty much anything that is offered. They are peculiarly subject to the overreaching of the harsh and greedy employer. The evils of the sweating system and the long hours and low wages which are characteristic of it are well known. . . .

Legislatures which adopt a requirement of maximum hours or minimum wages may be presumed to believe that when sweating employers are

prevented from paying unduly low wages they will continue their business, abating that part of their profits which were wrung from the necessities of their employees and will concede the better terms provided by law; and while in individual cases hardship may result, the restrictions will inure to the benefit of the general class of employees in whose interest the law is passed and so to that of the community at large.

The right of the legislature under the Fifth and Fourteenth Amendments to limit the hours of employment on the score of the health of the employee, it seems to me, has been firmly established. . . .

If it be said that long hours of labor have a more direct effect upon the health of the employee than the low wage, there is very respectable authority from close observers, disclosed in the record and in the literature on the subject quoted in the briefs, that they are equally harmful in this regard. Congress took this view and we cannot say it was not warranted in so doing.

From the dissenting opinion of Mr. Justice Holmes:

The question in this case is the broad one, Whether Congress can establish minimum rates of wages for women in the District of Columbia with due provision for special circumstances, or whether we must say that Congress has no power to meddle with the matter at all. To me, notwithstanding the deference due to the prevailing judgment of the Court, the power of Congress seems absolutely free from doubt. The end, to remove conditions leading to ill health, immorality, and deterioration of the race, no one would deny to be within the scope of constitutional legislation. The means are means that have the approval of Congress, of many States, and of those governments from which we have learned our greatest lessons. When so many intelligent persons, who have studied the matter more than any of us can, have thought that the means are effective and are worth the price, it seems to me impossible to deny that the belief reasonably may be held by reasonable men. . . .

This statute does not compel anybody to pay anything. It simply forbids employment at rates below those fixed as the minimum requirement of health and right living. It is safe to assume that women will not be employed at even the lowest wages allowed unless they earn them, or unless the employer's business can sustain the burden. . . .

I am of opinion that the statute be valid.

(*Mr. Justice Brandeis did not participate in this case, making the decision of the Court five to three.*)

WEAVER VS. PALMER BROS. CO.⁸

From the opinion of the Court, delivered by Mr. Justice Butler.

AN ACT of the legislature of Pennsylvania, approved June 14, 1923, regulates the manufacture, sterilization and sale of bedding. . . .

⁸ Adapted from opinions of the United States Supreme Court Justices in the Case of *Weaver vs. Palmer Brothers*; 270 U. S. 402; March 9, 1926.

Section 2 provides: "No person shall employ or use in the making, remaking or renovating of any mattress, pillow, bolster, feather bed, comfortable, cushions, or article of upholstered furniture: (a) Any material known as 'shoddy,' or any fabric or material from which 'shoddy' is constructed; (b) any second-hand material, unless, since last used, such second-hand material has been thoroughly sterilized and disinfected by a reasonable process approved by the Commissioner of Labor and Industry." Punishment by fine or imprisonment is prescribed for every violation of the Act, and each sale is declared to be a separate offense. . . .

The question for decision is whether the provision purporting absolutely to forbid the use of shoddy in comfortables violates the due process clause of the equal protection clause. The answer depends on the facts of the case. Legislative determinations expressed or implied are entitled to great weight; but it is always open to interested parties to show that the legislature has transgressed the limits of its power. . . .

There was no evidence that any sickness or disease was ever caused by the use of shoddy. And the record contains persuasive evidence, and by citations discloses the opinions of scientists eminent in fields related to public health, that the transmission of disease-producing bacteria is almost entirely by immediate contact with, or close proximity to, infected persons; that such bacteria perish rapidly when separated from human or animal organisms; and that there is no probability that such bacteria, or vermin likely to carry them, survive after the period usually required for the gathering of the materials, the production of shoddy, and the manufacture and shipping of comfortables. This evidence tends strongly to show that, in the absence of sterilization or disinfection, there would be little, if any, danger to the health of the users of comfortables filled with shoddy, new or secondhand; and confirms the conclusion that all danger from the use of shoddy may be eliminated by sterilization.

The State has wide discretion in selecting things for regulation. We need not consider whether the mere failure to forbid the use of other filling materials that are mentioned in the Act is sufficient in itself to invalidate the provision prohibiting the use of shoddy, as a violation of the equal protection clause. But the number and character of the things permitted to be used in such manufacture properly may be taken into account in deciding whether the prohibition of shoddy is a reasonable and valid regulation, or is arbitrary and violative of the due process clause. Shoddy-filled comfortables made by appellee are useful articles for which there is much demand. And it is a matter of public concern that the production and sale of things necessary or convenient for use should not be forbidden. They are to be distinguished from things the State is deemed to have power to suppress as inherently dangerous. . . .

The business here involved is legitimate and useful; and, while it is subject to all reasonable regulation, the absolute prohibition of the use of shoddy in the manufacture of comfortables is purely arbitrary and violates the due process clause of the Fourteenth Amendment. . . .

From a dissenting opinion by Mr. Justice Holmes in which Mr. Justice Stone and Mr. Justice Brandeis concurred:

If the Legislature of Pennsylvania was of opinion that disease is likely to be spread by the use of unsterilized shoddy in comfortables, I do not suppose that this Court would pronounce the opinion so manifestly absurd that it could not be acted upon. If we should not, then I think that we ought to assume the opinion to be right for the purpose of testing the law. The Legislature may have been of opinion further that the actual practice of filling comfortables with unsterilized shoddy gathered from filthy floors was widespread, and this again we must assume to be true. It is admitted to be impossible to distinguish the innocent from the infected product in any practicable way, when it is made up into the comfortables. On these premises, if the Legislature regarded the danger as very great and inspection and tagging as inadequate remedies, it seems to me that in order to prevent the spread of disease it constitutionally could forbid any use of shoddy for bedding or upholstery. . . .

In this case, I think that we are pressing the Fourteenth Amendment too far.

. . .

There are many people who would deny to the courts the right to declare laws unconstitutional. They assert that when representatives of a majority of the people decide a change in the prevailing legal rules is needed, this action should not be thwarted because a small group of judges decides that the proposed law is contrary to a Constitution which was written to apply to conditions quite different from those prevailing today. The most extreme opponents to judicial review of legislation argue that both the state legislatures and the federal Congress should be free from court interference. Others—the main body of those opposed to the exercise of judicial power to reject legislation—take a more moderate view. They agree that it is essential to national unity for the United States Supreme Court to reject state laws violating the federal Constitution, but contend that there is no sound reason why this Court should have power to reject as unconstitutional laws passed by the federal Congress. Such an arrangement, they think, works in favor of rich and powerful groups, and prevents a majority of the people from making rules governing economic life to promote the interests of the majority. The question of judicial review of legislative enactments, which has provided the basis of dissension for many years, was prominent in the presidential campaign of 1924, when the late Senator LaFollette advocated elimination of such a system. A statement of Senator LaFollette's position and an opposing argument by Justice George Sutherland of the United States Supreme Court follow.

JUDICIAL USURPATION ⁹

by Senator Robert M. LaFollette

WE HAVE never faced the fundamental issue of Judicial Usurpation squarely.

The time has now come to do so. It would require a dozen constitutional amendments to correct the evils of the decisions which the court has handed down within the past three or four years.

The time has come when we must put the axe to the root of this monstrous growth upon the body of our government. The usurped power of the Federal courts must be taken away and the Federal judges must be made responsive to the popular will.

The question is, which is supreme, the will of the people or the will of the few men who have been appointed to life positions on the Federal bench?

The power which the court now exercises to declare statutes of Congress unconstitutional is a usurped power without warrant in the Constitution, and it is absolutely certain the Constitution would never have been adopted had the men at that time believed that the court they were providing for would assume the powers now exercised by our Federal judges.¹⁰

I would amend the Constitution so as to provide—(1) That no inferior Federal judge shall set aside a law of Congress on the ground that it is unconstitutional; (2) That if the Supreme Court assumes to decide any law of Congress unconstitutional, or by interpretation undertakes to assert a public policy at variance with the statutory declaration of Congress, which alone under our system is authorized to determine the public policies of government, Congress may by repassing the law nullify the action of the court.

Thereafter the law would remain in full force and effect precisely the same as though the court had never held it to be unconstitutional.

The Constitution gave to the President of the United States a veto upon legislation, in order that the Executive might be able to protect itself against encroachments. But it also gave to the Congress the power to assert its will by repassing the law even after it had been vetoed. This was necessary in order to prevent the President from using his veto to block all progress and make himself a despot.

The Constitution did not give the courts a veto, but repeatedly refused to permit them even to participate in the exercise of the Presidential veto power. Nevertheless, the courts have asserted not a veto power while

⁹ Extracts from an address before the Convention of the American Federation of Labor, Cincinnati, Ohio, June 14, 1922.

¹⁰ The authors believe that Madison's report of the debates at the Constitutional Convention offers conclusive evidence that the framers of the Constitution planned to have court review of legislative enactments. Whether all those who voted to ratify the Constitution understood this is another question.

laws were in the making, but have usurped the far greater power to nullify laws after they have been enacted and by the process of so-called interpretation to declare the public policy.

We are confronted with a situation wherein we must make a choice that will determine the destiny of this nation in all the generations to come. This choice is simple but fateful. Shall the people rule through their elected representatives or shall they be ruled by a judicial oligarchy? Shall we move forward in our development as a nation, carrying out the will of the people as expressed by their ballots, or shall all progress be checked by the arbitrary dictates of five judges until the situation becomes so desperate that it can no longer be endured?

The American nation was founded upon the immortal principle that the will of the people shall be the law of the land. The courts have forgotten this, but the people have not. When they have an opportunity they will overwhelmingly declare that they will no longer stand for all the wheels of progress being blocked by arbitrary dictates of a majority of nine judges, but that a way shall be opened whereby the nation may move forward in peace, in order and in harmony to achieve the great ideals of freedom, prosperity and happiness enshrined in the Declaration of Independence and in the preamble of the Constitution of the United States.

THE WISDOM OF JUDICIAL REVIEW ¹¹

by Justice George Sutherland

THE chief value of the written Constitution, with its comprehensive system of checks and balances, is that it operates to prevent ill-considered and impulsive action—affords a period for sober reflection—but whenever the people have deliberately determined upon a step of real progress it will be found that the Constitution as interpreted by the courts rarely presents an obstruction, and in that rare and occasional instance it will be far better to reach the desired result by the slow process of amendment than by the drastic and dangerous expedient of constitutional violation.

The spirit of impatience to which I have referred finds a most unfortunate manifestation in the intemperate and frequent denunciation of the action of the courts in declaring to be unconstitutional statutes which have been passed by Congress or State legislatures in response to popular demand. Notwithstanding the fact that the recognized judicial doctrine for more than a century has been that the courts in cases properly before them have power to decide whether an act of legislation is opposed to the Constitution, the contrary is still vigorously asserted by many people, and the exercise of the power denounced as judicial usurpation.

Those who suggest that the court must construe the Constitution in accordance with the popular will, or that judicial interpretation should be subject to be overruled by popular opinion, however expressed or

¹¹ Extract from a speech before the American Bar Association, at Milwaukee, Wis., August 28, 1921.

ascertained, are simply advocating a method by which the rights of some of the parties to a compact shall be subordinated to the will of the other parties who happen for the time being to preponderate in numbers. Such a condition would not only set the administration of the law afloat upon a sea of uncertainty, but would be contrary to the underlying principles of the constitutional compact, and in the end would subvert the liberties of the individuals, who in alternation may constitute the majority today and the minority tomorrow, a result which the whole genius and spirit of the constitutional compact were plainly intended to prevent.

I suggest no doubt respecting either the right or the capacity of the people to govern themselves. In the United States they have always done that and they do so now. The question, however, is not whether the people shall govern, but it is by what method can they govern best—by their own direct action or through the governmental agencies which they have created. The tripartite division of governmental powers laid down in the Constitution is, I believe, essential to the preservation of the people's liberties. All history has demonstrated that where the power to make laws, to execute laws, and interpret laws is vested in the same individual or body, despotism inevitably results.

This important power of the courts to declare statutes void should be exercised, as it has been almost universally exercised, only where the infringement of the Constitution is so plain as to admit of no reasonable doubt in the mind of the judge, but if constitutional and orderly government is to endure there is but one course for the courts to follow, and that is to set their faces steadily and unswervingly against any palpable violation of that great instrument, no matter how overwhelming in the particular instance may be the popular sentiment or how strong the necessity may seem, for if the door be opened to such violation or evasion on the ground of necessity we shall be unable to close it against expediency or mere convenience. A departure of the line of legislation from the line of the Constitution, though inconsiderable at its inception, will become more and more extended as it proceeds, until some day we shall awake to the startled realization that the two have drawn so far apart that they can never again be reunited.

. . .

Although the courts have not hesitated to declare many legislative enactments unconstitutional, such action has been exceptional. They have approved most of the legislation which they have been called upon to review and this legislation, as previously indicated, has imposed a wide variety of restrictions upon private enterprise and property rights. This process of change is a continuing one. At each session of our state legislatures and federal Congress there are many proposals to limit the prevailing scope of private enterprise. Some of these proposals are always being contested in the courts. The result is a constantly changing set of legal rules governing economic activity.

During the last fifty years there has been a consistent tendency to place increasing restrictions upon the scope of private enterprise and property rights. During the next half century the tendency may be reversed, and many existing laws may be repealed by legislative enactment or neglect. Whatever happens, the legal "rules of the game" and the clashes of opinion over what they should be will be an essential part of all important economic problems—a part of the economic setting which students of these problems must take into consideration.

The present tendency toward increased governmental restrictions upon private enterprise and property is bitterly resented by many who deplore the drift away from the simple legal rules of the early days of the republic. Confident of their power to look out for themselves if the government will provide what they regard as adequate protection for private property, they frequently attack as unpatriotic any tampering with a system of law which they hold to be a sacred heritage from the forefathers. This point of view is reflected in the following extracts from a speech on "Radicalism in Washington" delivered by Martin W. Littleton to representatives of a group of patriotic societies.

LIFE, LIBERTY AND PROPERTY ¹²

by Martin W. Littleton

You know that our country is a country of definitive principles. It is not very old; it has not lived so long that it is lost in the mists of traditions. But our country is one which had a defined purpose. I could express it no better than to ask you to take the Declaration of Independence which says: "We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain unalienable Rights, amongst which are Life, Liberty and the pursuit of Happiness."

"Life, liberty and the pursuit of happiness." What is the meaning of each of these:—life, liberty and the pursuit of happiness?

Liberty is the right to move about the face of the earth, into its fields, its farms, its mountains, its counting houses, its banks, its offices, wherever your ambition may lead you to make captive the things which you can make captive for yourself without injustice or wrong to other people.

To put it in a concrete way, suppose you are born lowly circumstanced, you have a passion to get on; you want to shake the ignoble things off, you want to have light and leading, you want to learn a little, you would like to gather a little to yourself and provide for those who are nearest to you; and you do so without infringing the rights of other people. You gather it and garner it and put it away. That is the liberty of economic

¹² Adapted from an address at the first annual conference dinner of Patriotic Societies under the auspices of the Key Men of America, New York, April 18, 1927.

ownership of things—property, if you please. I realize it is a dangerous word now to use, except in conventional society, but nevertheless I mean just that—to own property, to keep it. Economic liberty, religious liberty, political liberty, personal liberty—those things which spread themselves out into the world and make you the conqueror wherever you go and make you garner to yourself and those you love the things which will serve them and you together!

Now that is the definition of liberty. There is another one. It is “the pursuit of Happiness.” In the old Bill of Rights in Virginia they first wrote it out, “Life, Liberty and Property”; but for euphony’s sake or some other sake they translated it when they got it in the Declaration of Independence, “Life, Liberty and the pursuit of Happiness.” It is a beautiful phrase—albeit it is a little confusing.

“The pursuit of Happiness” means, after all, that fine burst of aspiration and hope which the individual has which makes him go out and battle with the world and make his conquests. And that brings in the home, the acquisitions, the things which he earns, or owns, and ought to keep, and is entitled to keep against everybody.

* * *

Those who oppose government interference with private enterprise and property rights do not rest their case solely on their contention that it breaks faith with the traditions of the country. They also state that it thwarts the beneficial operation of the law of supply and demand which, if left to its powerful self, would guide economic life wisely and well. Mindful of this argument, our next task will be to consider this “law.”

QUESTIONS

1. Henry Ford says, “Never has there been an age so full of promise for youth, nor one so teeming with opportunities. Where one opportunity existed twenty years ago, a thousand do now.” Do you agree? If so, how do you account for the continual agitation in favor of having the government make new rules to balance up opportunities?
2. Is the distinction between business and industry of any practical importance? Can you give examples of the importance of this distinction from your observation or reading?
3. How does the definition of waste advanced by Mr. Dennis accord with your views on the subject? Do you think it agrees with the views of the business world in general?
4. How do you account for the contrasts in individual property holdings and incomes cited by Senator Shepard? Do they represent differences in individual initiative? If not, what do they represent?
5. Do you think there is any merit in the comparison of the modern

struggle to make satisfactory livelihoods with a foot race in which the contestants have various handicaps?

6. As equalizers of economic opportunities, is there an essential difference between inheritance tax laws and antitrust laws? Between income tax laws and pure food laws? If so, what is it?
7. Do you anticipate more or less governmental interference with private enterprise and property rights in the future? Why?
8. Is it possible that your opinion as to whether or not the Supreme Court should review legislative enactments might depend on your station in life? If so, why? If not, why not?
9. It has sometimes been said that the forefathers founded a government of laws and not of men. Do you think the Supreme Court decisions presented in this chapter support that view?
10. Do you think inclusion of a discussion of judicial review of legislative enactments is warranted in a book devoted to economic problems? Isn't it rather a governmental problem? Explain your conclusion.

CHAPTER VIII

COMPETITION AND PRICE

IN THIS chapter there will be a discussion of:

1. The significance of price.
2. Opposing views of the merits of the price system.
3. The possible significance of supply and demand in price determination.
4. The importance of cost in limiting supply.
5. Different definitions of cost.
 - (a) The business man's view.
 - (b) The economist's view.
6. The growing importance of overhead costs.
7. The difficulty of predicting or determining unit costs.
 - (a) Changing unit costs with changing volume of production—decreasing and increasing costs.
 - (b) Changing costs as prices vary.
 - (c) Joint costs.
8. Costs in different establishments.
9. The principal factors affecting demand.
 - (a) Purchasing power.
 - (b) People's tastes.
10. The capitalization process.
11. The danger in generalizing about the effects of supply and demand in determining prices.

WITH few exceptions, men in the United States today are specialists. Many of them, such as hod carriers and street cleaners, are not specialists of the same high order as optometrists and electrical engineers, but they are, none the less, specialists. They concentrate on the production of some one or a few products and services and trade them for other things. This trading process is carried on through the medium of money.

This being true, people are primarily concerned with money calculations, in other words, with the prices at which goods and services are bought and sold. In the records of prices are written the stories of economic success and failure. The farmer, particularly if he is the producer of only one crop, learns from price lists whether his year's work is to net him a new "flivver," more schooling for his children, and shingles on the roof, or just an addition to his debts. Before he brings his crop to market he has many difficulties to contend with, such as storms, insect pests, and drought, but no matter how successfully

he has overcome these obstacles, how hard he has worked, or how righteous he has been, he may still be rewarded by economic failure because of a price that "is not right."

What is true of the farmer in this respect is true of the industrial worker, the factory employer, the school teacher, the vaudeville performer, the government clerk, and all of the other countless specialists who are trading their services and commodities for money which will give them command over the essentials of what they regard as a satisfactory livelihood. If the price—the money payment for anything whether it be labor, food, the use of land, or what not—is not adequate, there will be disappointment, and often suffering.

Such a situation as this makes price a tremendously important, if not the key, factor in our economic organization. On price depends not only what will be produced, but how the claims to the products shall be adjusted among those engaging in the productive process. With prices determining economic success or failure, it is only the philanthropist who, in preparing to produce a commodity, can ask, "Is this a good thing for society?" Generally the question must be "Will it pay; will it command a profitable price?" Similarly the wage worker, if he is to get enough money to enjoy a satisfactory livelihood, must concern himself primarily with the price he can get for his labor. Otherwise he is apt to find himself facing winter with neither coal in the bin nor money to buy it.

This dominating interest in price which virtually everyone must have, has caused quite a few people to despair of ever making our economic organization work satisfactorily. By "satisfactorily," they generally mean working in such a manner as to assure the people who render socially useful services in industry, agriculture or elsewhere, money rewards commensurate with the nature of their services and sufficient to give them "good livings." These critics point a finger of scorn at the great money gains to be realized by perfecting monopoly, by selling patent medicines, and by bootlegging. They contend that any system of price adjustment which makes such practices profitable is a bad system and should be changed.

Such indictments of our price system do not go unchallenged. Opposed to those who condemn it is another group of people, equally vocal and generally more powerful, who contend that our price system represents some of the finest flowering of human genius and that proposals to tamper with it are both stupid and dangerous. They accuse the critics of failing to understand in their vicious ignorance the workings of competition and the law of supply and demand.

This law to which they refer is extremely difficult to state in intelligible terms because it is inextricably mixed up with the idea of

competition. In fact, when most business men talk about "the law of supply and demand" what they really mean is freedom from restraints to which they are opposed. When, for example, American tire manufacturers, and, indeed, presidential Cabinet members, state that raw rubber prices should be left to the law of supply and demand, what they actually have in mind is that such prices should be determined by unrestricted competition, and that the British government should discontinue its control of rubber exports to this country.

One statement of the law of supply and demand, as the phrase is used in academic circles, is that "when there is competition among both buyers and sellers, price tends to be fixed at a point at which supply and demand are equal"—*i.e.*, at a point where everyone willing to pay that much can be supplied, and everyone willing to sell for that much or less can find a buyer. Such a statement, of course, means very little until some attempt is made to explain why prices are fixed at this point. In this explanation most of the burden is carried by the idea of competition, with which most laymen directly identify the so-called law of supply and demand.¹

It is obvious, say those who cite the operation of the law of supply and demand as a defense of our present price system, that goods cannot be sold for less than it costs to produce them. The bankruptcy courts stand ready to swallow up those who think it possible. On the other hand, they say, if the price of a product remains more than temporarily above what it costs to produce it, other producers will enter the field. The supply of the product will thus become greater than the demand, and the price must be adjusted downward to a point where supply and demand are equal.

This price, say the exponents of the virtues of the law of supply and demand, is not only the price where supply and demand are equal; it is also the best of all possible prices. For one thing, it is the lowest possible price. If this were not the case—so the argument goes—efficient producers in a given field would have an irresistible incentive to increase their output and take advantage of the unduly high price. That would increase the supply, the price would drop, and any inefficient producers who might have been in the field would risk being

¹ Sometimes the fact that the prices of all commodities and services are determined by the supply available and the demand for it is put forward as the "law of supply and demand." It is argued that even if there were complete monopoly over the supply of such an essential product as water, and drops were doled out on the basis of what frantic people would pay for them, the price would none the less be fixed by supply and demand, and hence in accordance with the "law of supply and demand." Such an argument is simply an exposition of a truism which is something quite apart from the conception of the "law of supply and demand" as a regulator of economic activity. It is with this conception of the "law of supply and demand" as a regulating force that the discussion in this volume is concerned.

driven out of business. Thus prices tend to be maintained at the minimum necessary to cover the costs of the most efficient producers.

In addition to providing products at the lowest possible prices, the unrestricted operation of the law of supply and demand is presumed by its most enthusiastic admirers to give adequate protection to all those producing goods in any capacity, and to knit all economic activity into an efficient whole. How this is supposed to be accomplished is explained by the following theoretical statement² of the competitive ideal.

THE COMPETITIVE IDEAL³

by Walton H. Hamilton and Helen Wright

THE competitive system promises an economical organization and development of an industry. Under its regime each of the units which make up the industry must tend to be an orderly establishment run with little waste. It could not well be otherwise; for disorder, or lack of economy, means higher costs, higher prices, and an inability to compete against producers who have banished chaos from their properties. Again, the separate undertakings must be articulated into a unified industry. Competition, far juster than the rain, will grant survival only to the efficient; and, merciful as it may be for a while, it will in the end deny economic life to enterprises which are wastefully run.

Likewise, the industry must be properly correlated to other industries; for in the endless struggle which is promoted, just enough efficient concerns will survive. The presence, occasionally, of more or less than the requisite number of concerns, of an over- or under-supply of equipment, or of a surplus or a dearth of workers, is only the friction incident to the adjustment of the industry to the changing demands upon it.

It is eloquent of this automatic process that the loss through over- or under-production tends to a minimum; that the capacity of the industry tends to be adjusted, constantly and wastelessly, to the changing demands upon it; that the trend of the cost of production is toward the minimum.

Under the competitive system the rights of the consumer are adequately safeguarded. Products must be of high quality and their prices cheap. This guarantee has its source in economic law and is far more valuable than the mere written word of the seller. No company can palm off low-quality products, for those who receive without giving are eventually detected and are forced to change their practices or to lose

² This is a statement of Utopian conditions, not a report of how the competitive system actually operates. It is used by the authors to provide standards by which to test the performance of the bituminous coal industry of the United States. The performance, reported in "The Case of Bituminous Coal," bears little resemblance to the ideal.

³ Adapted from *The Case of Bituminous Coal*, Institute of Economics, Washington, D. C., 1925, pages 28-37.

their customers. Nor can the producer for long charge more than the traffic will mercifully bear. If he attempts to do so, he will be circumvented; for there will always be concerns able to increase their production, or it will be possible for others to enter the field. A price which is unreasonably high, by its very promise of profits, encourages increased output, and in an open industry in time automatically corrects itself.

Such protection to the consumer is effective against wasteful competition. The consumer has his products at a price which in the end represents only the necessary costs of production. Since each producer seeks profits, which are a surplus of receipts over expenses, he is assiduously engaged in reducing his costs. If he fails, there is the constant threat of the outsider, who by skill or cunning can reduce costs. Accordingly, the industry cannot for any great time absorb more laborers, use more materials, or pay more for investment funds than are necessary. Nor can workers, who also must compete with each other for jobs, continue to spend their time in ineffective ways of work or dissipate it in idleness. In all matters of economy and waste, the double competition of workmen for jobs and of companies for custom leaves only the efficient in the industry, reduces costs toward a minimum, and imposes upon the consumer the lowest price.

Its protections are effective particularly against would-be profiteers who would squeeze out extravagant returns between expenses and receipts. In an open industry those who organize new ventures and those who keep old ones going can on the whole get only reasonable returns for their services. The enterprising company may still make differential profits by keeping its costs below those of its competitors. But competition quickly drives rival concerns to copy any economy, and if the progressive concern would keep on making large profits, it must forever be alert in developing and applying new methods.

In fact, such differential profits are a spur to progress within the industry. Every progressive concern lured by profits which competition is constantly whittling away, bends every effort to advance as rapidly as possible each of the many technical processes which make up the art of production. Thus, inconspicuously, and with no conscious bother over it, technology is rapidly advanced.

For a time, at least, the concern responsible for the improvement reaps in profits its reduction in costs. It may even, by securing a patent for the new invention or the new process, reap where it has sown for a period of years. Shortly those who employ the new methods will expand their output. This, by increasing the part of the supply produced at a cost lower than current price, will reduce price. Eventually the improvement will go into general use, lowering costs uniformly, and price automatically.

Under the competitive system, likewise, those who draw their livings from the industry must have whatever chances there are at the fullness of life. Wages are protected by a double competitive line. There is, first, the competition of the concerns within the industry for labor. This drives wages up and compels the employer to pay to every laborer

the full value of his service. There is, second, as a guarantee and reinforcement, the competition with other industries. If earnings tend to be low, it is because of no actions of employers, but because of the competition of laborer and laborer for employment. The market records with reasonable accuracy the wage-rates which are implicit in the forces of demand and supply; in general, the laborer escapes exploitation and receives in wages as much as the situation can be made to yield.

In the same manner, each of the conditions of work is constantly being redefined in approved practices. The arrangements which affect hours, discipline, safety, health, and the like are all voluntarily entered into by wage workers who are free not only to accept or to refuse work at a given industrial plant, but also to enter the industry or to work elsewhere. Every advantage which they want, and which the economic system can allow, is hedged about by this double competitive barrier which the most ignorant and vicious employers cannot break down. And again, if in any of these matters practice falls below what is easily attainable, the fault probably lies in an overplus of numbers or in a willingness of workers to take less than they may have.

As it is in general, so with each of these items. If, in a particular plant or industry, hours are long, the offenders lose by so much their ability to attract workers. They cannot compete in the labor market unless compensation is made in increased pay or in some other material way. The coal miner, for example, cannot be subjected to severer discipline than is the farm laborer or the factory hand. If work underground is more disagreeable than work upon the surface, higher wages or some other extra inducement is necessary to persuade a worker to endure it. If his work makes the miner unduly subject to disease, a little fatter pay envelope, or its equivalent, tends to eliminate the difference. Even the extra risks of accident are smoothed out by the even-handed calculus of the market. Either the mining companies will be forced to adopt safety codes which will eliminate all chance peculiar to the industry, or they will be compelled to add to the wages paid in other occupations enough more to persuade the miner to accept the hazards of his craft. Under perfect competition the miner finds this extra bit just enough to enable him to protect himself by purchasing insurance. Nor in the long run can there remain in this intermittent industry an unemployment problem. The competition of other industries for men will force those who control coal mining either to eliminate unsteady jobs or to compensate for idleness by higher wages or its equivalent.

As with labor, so it is with each of the other groups who are dependent upon an industry. So long as competition prevails, the usual interest payments will be only enough to insure a continuous flow of the investments which the industry requires. This payment, however, will be a reasonable return upon the investment as measured by the market value of funds. So long as competition is maintained, owners will receive in profits enough to recompense them for their risks and to persuade them to take them. There will, it is true, be business failures. But, even in

periods of change, the adjustment of business enterprise to public demand will be effected nicely and with as much economy as may be.

Likewise managers, engineers, foremen, and functionaries of every kind and degree will be found when they are needed, and then at reasonable prices. There will, again, always be cases of over-payment and under-payment, when the friction incident to the progress of the system is more apparent than the order which it conceals. But, by and large, a double competitive process will insure to all who furnish funds, materials, and services an adequate return with a usual imposition of only necessary costs upon the industry.

. . .

In contrast to the theory just outlined, is the view previously noted that the price system is a treacherous arrangement offering special premiums to those who are powerful or unscrupulous. To plot a fairly even course through the maze of conflicting opinions about the workings of the price system is our task during the next eight chapters. Somewhere between the idea that the price system is inherently vicious and that it represents the last word in righteous creation must lie the elusive truth. We can at least start on a search for it.

In making such a search, we should keep in mind two key questions: first, what is it that a price system should accomplish; and second, how does it work? In the chapters on prices which follow, most of our attention will be devoted to the second question, but this should not preclude a running query as to what the system is supposed to be accomplishing.

In a study of the price system we must first examine some of the factors which have a bearing on the determination of particular prices. One of these factors is cost. It may be taken as fairly axiomatic that in an economic society where success or failure is gauged by money return, goods cannot be produced indefinitely unless the selling price covers the cost of production. But what is cost of production?

Cost of production is generally defined as the sum of all of the outlays necessary to put a given good or service on the market. This is generally taken by economists to include cost of materials, wages, rent, taxes, advertising, insurance, etc., plus a "reasonable" profit. The reason for including the profit item is that when cost is viewed from the standpoint of price determination it is taken to include all of the elements which serve to limit the supply of a product. From the business man's point of view, profit is what is left over after all costs of production are paid. He is less interested in the problem of how prices are determined than he is in the question of how much money his business is netting him.

In defining cost of production as "the sum of all the outlays

necessary to put a given good or service on the market," the question immediately arises as to what is necessary. The following statements covering cost in a variety of aspects are all addressed to that question. The first statement considers the various elements that go to make up the cost of getting out a product from the standpoint of a business manager.

AN ACCOUNTANT'S VIEW OF COST⁴

THE purpose of conducting a business is to make money, and the only way to make money is to sell something for more than it costs. Cost consists of three elements, material, labor, and expense.

The first element of cost is material.

The second element of cost is labor.

The third element of cost is generally known as "overhead expense." Overhead expense is expense of every kind connected with the business, none of which can be directly located as belonging to a particular job.

Illustrative of overhead cost is Building Expense or Rent. If the building is owned by the manufacturer, the building expense consists of Insurance, Taxes, Depreciation, and Repairs, together with such other expenses as are general in their nature but yet are necessary to render the building useful, such as heat, light, elevator, janitor and water. If the building is rented, the items of insurance, taxes, depreciation, and repairs are paid by the owner, and in lieu of these the business pays Rent. Rent includes a return on the investment in addition to the items named.

Another requisite is power, and this must be obtained either from outside sources or generated in one's own plant. Insurance and taxes are expenses to be distributed on the basis of the actual net value of the equipment in each department.

Depreciation is one of the most important of all the overhead expenses, because it is generally the largest. It is an element of cost just as much as labor or material, and any system of accounting which does not provide for including it is faulty and one that will not give true costs.

. . .

In the previous statement no mention was made of profit as an element of cost. That was because cost was treated from the viewpoint of the business manager who regards profit as the excess above cost. If it had been written by one primarily interested in the question of how prices are determined, there would have been a discussion of profit as part of cost.

The reason for the inclusion of a profit element in cost of production, when cost of production is being considered as a factor in price

⁴ Adapted from a *Report of the Federal Trade Commission*, Government Printing Office, Washington, D. C., July 1, 1916.

determination, is not difficult to understand. Modern business establishments are run for profit. If there is no profit or no prospect of profit, there is no incentive for them to continue in business. If they discontinue their activities there will be a falling off in the supply of goods which they produce. Consequently, if the supply of a particular product is to be maintained, there presumably must be a "reasonable" profit in that line of business. That is one of the factors involved in considering the supply of any product and consequently, from the standpoint of price analysis, a part of the cost of production.

The question of what is "reasonable" is extremely difficult, if not impossible, to answer. A safety razor concern, protected by a patent monopoly, may consistently make a profit of over one hundred per cent every year. A railroad, whose equipment cannot be turned to any other use without almost complete loss, may continue to provide transportation service for years without making any profit at all. What share of the razor company's profit is properly to be considered cost of production? What part of it is necessary to keep the concern in the business of turning out razors? That depends primarily upon what profit the concern could make if it abandoned the production of razors and turned to producing something else. And that, in turn, depends upon the adaptability of the razor company's equipment and the openings in other lines of production. It might be that the razor company would shift to producing something else if its profit fell below ten per cent. It might be that it would continue to produce razors even if there were no profit at all, just as the railroad cited continues to produce transportation without profit because there is nothing else it can do as advantageously.

The question of what is a "reasonable" profit, then, resolves itself largely into a question of what other profit-making opportunities are available. It may range anywhere from less than nothing to many hundred per cent, depending upon the particular circumstances in which a particular concern finds itself. The theory outlined in the discussion of the competitive ideal is based on the assumption that producers will shift from lines of production where there is no profit into those where profits are large, and that consequently profits generally will tend toward a common level. But does this actually take place? If producers are unable to obtain for their products prices high enough to yield them a profit, will they shift to other fields? Or if they are unable to get a price which covers their cost outlays, regardless of profit, will they shift to some other line of production, or stop producing? Some light is thrown on these questions by the following discussion of overhead costs.

OVERHEAD COSTS⁵

by John Maurice Clark

WHAT are "overhead costs"? The term is nowadays much used and variously defined; in fact, it covers an entire family of ideas, but they have one essential thing in common. They refer to costs that cannot be traced home and attributed to particular units of business in the same direct and obvious way in which, for example, leather can be traced to the shoes that are made from it. And most of the real problems involve one other fact; namely, that an increase or decrease in output does not involve a proportionate increase or decrease in cost.

It was the railroad that first brought the notion of overhead costs into real prominence with economists. When railroads were new, their rates were commonly uniform or nearly so, based on weight and distance, and were uniformly high. Soon it was discovered that additional traffic could be carried at little or no additional cost and that reduced rates, if confined to classes of traffic not already moving, would increase the net earnings of the company. Thus classification was born and the foundations were laid for cheaper railroad carriage than would ever have been possible without discrimination.

Thus the world of economic thought was made aware of a fact which is older than railroads, older than economic science and, far from being a peculiarity of one business or a group of highly capitalistic businesses, is universal. So far as railroads were concerned, the chief use made of the notion of overhead costs was to justify discrimination as a general practice, on the ground that added traffic was not responsible for those costs which did not increase as traffic increased, and that in any case it was impossible to determine the proper share of costs traceable to one shipment or one unit of business. Some attempts were made to estimate in figures the relation between traffic and cost, the question being framed in the form: "What percentage of railroad expenses are constant and what percentage variable?" The common conclusion was that about half the operating expenses were variable and everything else, including taxes and all return on capital, was constant.

It soon became evident that railroads were not the only industry using large fixed capital and subject to the "peculiarities" of constant and variable costs. It also became evident that discrimination was not the only untoward result of such a condition. Rate wars on the railroads often abolished the regular classifications and brought all rates to a level far below cost. Large companies, railroad and industrial, failed, were reorganized, and continued in business, often more formidable competitors than before. It became evident that economic law did not insure prices that would yield "normal" returns on invested capital, because the capital could not get out if it wanted to, and so had to take whatever it could get. The business cycle had become a recognized part of the order of

⁵ Adapted from *The Economics of Overhead Costs*, University of Chicago Press, 1925.

things, with its recurring periods of excess producing capacity, during which active competition tended to lower prices until even efficient concerns could make little or no return on their investment. "Cut-throat competition" was seen to be a natural thing, and it was seen to be equally natural that business should adopt protective measures, whether combinations, pools, gentlemen's agreements, or a mere sentiment against "spoiling the market."

Important developments have occurred in connection with public utilities, especially, perhaps, the business of furnishing electric current. Here, for the first time, organized technical attention is paid to the recurrent ebb and flow of output and the daily and seasonal "peaks" of demand. The *sagging* of demand at off-peak hours represents waste in the form of unused productive capacity, or "idle overhead." The interest on the capital investment is mostly independent of output actually produced, and is governed by the output the plant stands ready to produce. This is a cost, then, which off-peak business need not pay in order to be worth taking. The problem of policy involved is twofold—to stimulate off-peak business in various ways and so improve the utilization of the plant and to apportion justly the burdens that do not vary with output.

Here, for the first time, we find price policies based on overhead cost being worked out by definite mathematical formulas. This, and the recognition that fluctuations of output involve "idle overhead" in the shape of waste productive capacity are the two big contributions of the public service industries to the general development of the economics of overhead costs. This idea of peak loads, and of waste through irregular utilization, has come to apply to practically every industry in some form or other. Restaurants, theatres, golf clubs, garment-making industries, railroads and street cars, building, and other trades—all have their peaks, daily or seasonal. And all industries suffer in common from the unpredictable irregularities of the business cycle.

Once the holding of unused productive capacity is conceived as "idle overhead," it is inevitable that the idea should be extended to human powers as well as to the powers of physical plant and machinery. Wherever a laborer has invested time and money in specialized training, the result is, in a certain sense, fixed capital which is useful in one occupation, and no other, and which must earn whatever return it can, because the investment cannot be withdrawn and moved into some other line of business. In such a case it seems fairly clear that labor involves an overhead cost.

In a more general sense, however, there is a minimum of maintenance of the laborer's health and working capacity which must be borne by someone, whether the laborer works or not: that is, if it is not borne, if the maintenance is not forthcoming, the community suffers a loss through the deterioration of its working power which is at least equivalent to the cost of maintaining the laborer. Thus the burden is there in any case; it cannot be avoided. From this point of view it appears that a

large part of the cost originally counted as wages represents an overhead cost which the laborer is responsible for covering as best he can, just as the employer is responsible for covering the overhead cost on account of capital. However, if the laborer fails to cover it, the community does not escape the burden, and it is ultimately borne by industry in the shape of reduced productive power and damaged morale. And thus it comes back to the employer in any case. If this last step is taken, overhead costs are seen to be a universal fact.

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During the railroad pioneering days in this country, a passenger-train conductor was accused of turning over to the company only one-half of the cash fares he collected. He defended himself on the ground that so long as the train was making a trip anyway the extra cost of carrying a few additional passengers was negligible, and that he was more than reasonable to turn over half of this "velvet" to the company. The conductor's argument suggests a very important consequence which flows from the existence of overhead costs. That is production at what is generally known as decreasing cost.

DECREASING COSTS

WHEN an enterprise has a very large volume of costs which do not vary with output, an increase in production enlarges the number of units to which these costs are assignable, and so makes possible a decrease in unit costs. In the case of a railroad many costs, such as track maintenance and interest on bonds, must be met if the railroad is to do business at all. In dull times the railroad might be able to carry twice as many passengers as it actually does without any great increase in total expenditures. Then the average or unit cost of handling passengers would be greatly reduced. One hundred divided by 20 equals 5; divided by 40, equals 2.5; which is hardly a fair illustration, since some costs do vary with output. Even if total costs increased to 120, the unit cost for 40 would still be 3, far below the original figure of 5.

What is true of railroads is true of all other producers in varying degree. An investigation of 150 hotels for the *Chicago Tribune* showed that hotels must have an average occupancy of 70 per cent in order to break even. So small are the extra costs involved in entertaining additional guests that with an occupancy of 80 per cent, net profits are twenty-three per cent on the investment. If great good fortune keeps 90 per cent of the rooms full all the time, net profits mount to forty-three per cent! In most of the great industrial plants so characteristic of this age, investment in equipment is very large. This equipment imposes about the same cost when it is idle, when it is being used half the time and when it is being used every available moment. For this reason a reduction in unit cost may easily be made by increasing output, if the plant is not already being utilized to capacity.

Very often lower unit costs may be achieved by building bigger factories and operating on a grander scale. This is partly because in larger plants minute specialization of labor and machines increases efficiency. Five hundred men, each repeating relatively simple tasks, can produce more than ten times as many automobiles in a given period as fifty men, each of whom performs a variety of operations. And when tasks become sufficiently simplified it is frequently possible to substitute a tireless machine for a fallible human being. Such saving by increased labor and machine specialization makes possible a lowering of unit costs. Moreover, raw material and shipping charges are less per unit when production is on a large scale. The managers of a shoe factory which turns out a thousand pairs a day are able to buy leather cheaply in large quantities and to reduce transportation costs by shipping in carload lots. For these and sundry other reasons, unit costs are prone to decrease sharply as output increases.

Presumably a manager does not wish to sell below "cost of production"; but what is that? As the volume of output increases unit costs fall. Can he give more than a shrewd guess at the volume to be sold in a given period? How much of a price concession can he afford to make to a competitor's customer to induce him to shift his patronage if the extra units impose little added expense?

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Calculation of an answer to the question, "What is cost of production?" becomes even more difficult when due account is taken of "increasing costs."

INCREASING COSTS

LARGER output does not always lead to reduction of unit costs. Railroads with limited terminal facilities find that the added congestion of increased traffic pushes costs up very quickly. In the late war, shipments to the eastern seaboard were so heavy that the railroads could not handle them cheaply. Nor could they take care of this traffic satisfactorily at any cost. Then came the five-day shutdown of factories and "Blue Mondays" when factory laborers had no work to do because the railroad tracks had to be cleared. Operation of plant and equipment beyond capacity leads to high unit costs just as operation below capacity does. Firms that are able at one time to do more business with the existing plant at steadily decreasing unit costs, find that under different conditions additional volume increases unit costs.

Managers who have found a larger plant yielding its quota of products at low unit cost may be inclined to expand operations still further. Will unit costs be again reduced? Not necessarily. Specialization may have reached its limit already. Managerial ability may not be equal to the larger task.

At the Ford plant, when it was at its height of mass production of Model T, one worker's job was to switch on the lights of each car, check

them for defects and turn them off. That worker represented almost the final degree of human specialization. He might conceivably have been limited to the task of turning the lights on, others checking and turning them off, but it is at least doubtful whether this increased degree of specialization would have led to a further reduction in cost. Moreover, as organizations grow larger, bosses multiply. Foremen report to division superintendents, who report to general superintendents, who report to general managers. It is the task of these various overseers to keep all the specialized workers and machines busy on material passing smoothly out through the various channels to the consumer. That is not an easy thing to do.

As volume increases, then, a point will be reached where unit costs are rising rather than falling. Just where this point occurs can be determined only by a study of all the factors in each case.

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“Cost of production”—something easy to talk about when someone inquires how prices are determined but quite difficult to figure out in advance when unit costs vary so much with increased volume. They may go up or down. And if the sales staff is not on the job, fewer units may be needed. Then what will happen to costs per unit? That depends.

Even when output remains the same, it may still be extremely difficult to determine unit costs in advance because prices charged for raw materials, labor, and the use of money have a way of sliding up and down at frequent intervals. This complication in the problem of determining unit cost of production is set forth below.

SHIFTING COSTS AS PRICES VARY

EXCEPT when long-term contracts are made for raw materials, fuel, land, labor, and advertising, the prices of these necessary factors of production are subject to change without notice. The wholesale price of bituminous coal may fall from \$6.10 to \$4.50 per ton in a single month, as it did in the summer of 1917. Middling cotton delivered in New York may be 17c a pound in September and 13c in October, as in 1926. Such sudden changes make the calculation of unit costs a complicated problem—some of the cotton used in January may have been bought in September and some in October—just what does the cotton in this piece of calico in hand cost the manufacturer?

Some of the price changes, which alter costs for users of the products, are more or less regular in occurrence and can be predicted with a certain degree of accuracy. Each September peaches will be cheap in Connecticut. The few housewives who still can their own fruit take advantage of that. Poached eggs appear on boarding-house tables at specified seasons only. Every few years a bumper apple crop drives

prices down. Over very long periods of time certain trends in individual prices can be observed. During the present generation users of electric power have benefited from a long downward swing due in large part to improving technique. On the other hand, good tobacco land, once obtainable for almost nothing at the very back door of southern tidewater plantations, is now expensive. The culture of the weed has taken its notoriously heavy toll of soil fertility. In the streams of the western mountains trout could at one time be caught with little effort by the most inexperienced angler. Now, when the President of the United States visits the Black Hills in search of trout, it is necessary to hire boys to wade the upper reaches of the presidential trout stream and to herd the few remaining fish into a concentrated area where they can be easily extracted. This procedure adds mightily to the cost of catching trout. The long-time trends of prices of raw material, labor, land, and advertising depend on dozens of factors; enough for present purposes to say that such trends do exist and affect costs.

Somewhat less regular are price fluctuations over shorter periods in connection with the so-called "business cycles." The wholesale prices of coke, pig iron, hides, and some other items fluctuate with business activity to such an extent that the Harvard Economic Service constructs a price index of business cycles from these prices. On the other hand, the prices of crude petroleum, cotton, and a million other things cannot be traced to business cycle influences, nor do they vary directly with business activity.

Finally, most irregular of price variations are those resulting from floods, strikes, wars, earthquakes, disease, and invention, not to mention legislation. Sending a million men to France reduces the labor supply in this country, and so does the passing of a law restricting immigration. These "unusual" events are frequent enough to keep our press amply supplied with news, and in many a case prove confusing to business calculations of cost of production. One need only follow the doings of the boll weevil for a season or two to see what he may do to costs of raw materials for the cotton mill. For the most part, the changes in cost due to these "abnormal" conditions are unpredictable but have marked effects on costs. When we consider all the various seasonal, long-time, business cycle and other factors that send costs up and down in rather irregular and generally unpredictable fashion, it becomes evident that the business manager has something of a job to figure costs even when the volume of output remains the same.

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Any supposition that "cost of production" is a thoroughly tamed and easily applied formula is subjected to further question by the investigation of "joint costs." Even after costs have been incurred in producing commodities or services, it may be impossible to apportion the costs of the various items accurately.

JOINT COSTS

IN ALMOST all lines of productive activity there are joint costs of production. Pronounced examples are found in the case of the farmer who raises pumpkins between corn rows and then allows chickens to forage over the land occupied by the corn and pumpkins; in the case of the meat-packing establishments which produce steaks, buttons, hides, and tennis-racquet strings from the same carcasses; in the case of the mining companies which produce lead, zinc, copper, tin, and gold from the same ore; in the case of the filling-station proprietors who also manage lunch counters and soft-drink stands; and in the case of the automobile dealers who distribute refrigerators. In these instances, which can be multiplied indefinitely, it is impossible to assign an exact cost of production to any unit of output because each unit is produced jointly with some other unit, or at joint cost.

What is the cost to the cotton farmer of producing his crop of long staple cotton or cotton linters, or cotton seed? What is the cost to a railroad of hauling one Pullman car passenger, one crate of peaches, and a ton of coal for two hundred miles? No one knows. The cotton farmer, although a notoriously bad accountant, may have some notion of what it costs to produce his entire crop, but he has no way to find out the cost of various elements produced as they were "in a lump." The railroad will know what the cost of maintaining its service as a whole is, but it will not be able to assign individual costs because many cost elements are not directly connected with specific services.

How, then, do people producing goods at joint cost have any idea whether the price they are receiving for their products is covering the cost of production? In the case of a variety of things produced at joint cost it is generally impossible to answer this question for each one. For the group as a whole the producer can tell whether or not he is meeting his total cost of production. If there are specific costs attached to producing one of a number of things otherwise produced at joint cost, the producer can tell whether the price received for that one covers the special costs. The railroad company has facts, for example, to show whether its dining-car service, produced partly at joint cost with its other services, yields an income to cover the special costs attached to that service. The gold-producing company can find out whether the special cost attached to extracting lead from its ore is covered by the price it receives for the lead. However, although a company may know its entire cost of production and the special costs attached to particular products, it is impossible for it to tell the exact cost of any one thing produced under a joint-cost arrangement.

Even if the individual costs of producing a variety of goods at joint cost could be determined, and if the producer were to discover that the prices of some of these products failed to cover their costs of production, there would still be frequent instances in which he would be powerless to

remedy the situation. That is because the production of one thing may inevitably occasion production of the other. To get cotton one must produce seeds; the production of beef and hides cannot be divorced, nor can that of wheat and straw, gold metal and slag, corn and cornstalks, or mutton and wool.

It is true that in certain instances producers can adjust the output of joint products with some reference to their probable selling prices. In the oil-refining industry, for example, it is possible within certain limits to vary the yields of gasoline, kerosene, and fuel oil from a barrel of crude oil in accordance with the prices obtainable for these various products. Likewise, the supply of mutton and wool can be controlled to some extent according to the prices to be realized from the joint products of the sheep. More often, however, the relationship of joint products is fixed by nature, as in the case of cotton and cotton seeds, or beef and hides. In such instances the production of by-products must be carried on without reference to the cost of production or the selling price because it is an automatic accompaniment of the principal product.

Able to control the proportions of various products only within narrow limits or not at all, producers may be lucky enough to obtain markets for once useless by-products as a gift of chance or as a result of their own efforts in creating a demand. It not infrequently happens that the returns from what were once by-products become greater than those of the principal product.

In the early days of the oil industry, the highly inflammable gasoline found in crude oil was thrown away as a useless and dangerous impediment to recovering kerosene, which found a ready market for illuminating purposes. The pioneers in the Argentine cattle industry slaughtered the animals to obtain the hides, and the carcasses were abandoned. With the enormous development of gasoline motors, and the perfection of adequate transportation and refrigeration facilities for Argentine beef, both situations have been changed. What were once useless by-products are now the principal products of these industries. In cotton production new uses are continually being discovered for cottonseed oil, and the rise of the rayon industry and other industries utilizing cellulose products has provided new and important uses for cotton linters.

These new uses of cotton seeds and cotton linters have led to a greater relative increase in the price paid for them than in the price paid for cotton fiber. This price increase, it should be noted, has not been occasioned by a greater relative increase in the cost of producing seeds and linters. They are by-products of cotton fiber and automatically flow from the production of the fiber for which the cotton-growing industry is primarily maintained. Consequently, the cost of producing the seeds and linters, even if it could be accurately determined, would not control their production. As a matter of fact, the cost of producing them or any other joint products cannot be accurately determined.

In the discussion of the rôle of competition at the beginning of this chapter, it was noted that competition is presumed to force the price of a product down to the point where only the most efficient producers can survive. The extent to which this happy state of affairs actually exists outside the realms of competitive theory is suggested by the following discussion of costs of production in different establishments in an industry, indicating the difficulties encountered by a board trying to fix prices during the war in such a way as to cover cost of production.

COST IN DIFFERENT ESTABLISHMENTS ⁶

by Paul Willard Garrett

THE most useful data, which the war boards sought to have on hand before beginning the determination of a fixed price, were schedules of the costs of production. The Federal Trade Commission, with its hundreds of accountants busy over the country, supplied cost figures especially for the War Industries Board, the price-fixing committee, and the Fuel Administration. Various interpretations were put upon different cost data in the determination of the point above which to allow a "reasonable profit."

It was obvious from the outset that producers would not strive to turn out their maximum of production unless assured of a price high enough above their costs of production to yield them a reasonable profit. But as soon as an investigation into the cost of producing any commodity began, wide differences appeared between the costs incurred by the several producers. The problem remained throughout the war one of the most intricate of those confronting price-fixing boards.

Less difficulty would have been encountered in finding a single unit cost of production for each commodity controlled, perhaps, had the whole of each commodity been produced by one company. It was relatively simple to represent the cost of producing a pound of nickel or of aluminum in this country because the output of each was virtually controlled by a single concern. But the cost of producing a ton of pig iron varied from \$18.14 to \$45.72 in September, 1918, according to figures collected by the Federal Trade Commission. The cost of producing a ton of beehive coke varied in like manner, with different producers, from \$2.93 to \$11.45. The cost of producing a ton of anthracite coal within the Pennsylvania district varied from \$2.64 per ton to \$7.06. An excellent example in the diversity of unit costs is brought out by the Federal Trade Commission report upon the costs of producing rosin, which shows a variation in the per cent of margin on investment running for different companies from 10.7 per cent to 275.1 per cent. The price-fixing committee gave considerable thought to this problem, and endeavored carefully to determine whether it would be better to fix upon a

⁶ Adapted from *Government Control Over Prices*, War Industries Board, Government Printing Office, Washington, D. C., 1920.

set margin of profit above cost and thus fix a different price for each producer, or select a point somewhere between and make that single fixed price applicable alike to the low-cost and high-cost producer.

The theoretical arguments urged before the price-fixing committee in favor of allowing each producer a set margin of profit above his individual cost of production soon gave way to the practical difficulties involved. The committee came to believe that any theory of determining fixed prices, akin to the cost-plus rule, made for encouragement to the less efficient high-cost producers. There seemed no disposition to countenance a practice that would give the high-cost producer precisely the same war-time guarantee that accrued to the low-cost producer, since there was not at hand the enormous administrative machinery necessary to enforce a variable price. The price-fixing committee and the Fuel Administration thereupon determined to throw overboard the niceties of the variable price, and to fix a flat price somewhere above the "bulk line" of production.

The term "bulk line" of production, as it came into use during the war, meant the indispensable amount of any commodity that the war program required should be produced, and the "bulk line" of cost meant the unit cost to produce the last unit lot of that requirement. It was the cost of production at the hands of this bulk-line person which usually formed the basis for the price fixed. An arrangement of the costs of beehive coke, for example, shows that there was a gradual shading in the cost of production, from \$2.93 per ton by the lowest-cost producers to \$11.45 per ton by the highest-cost producers. But it was found that these highest-cost producers had a capacity to supply only the last 10 per cent of maximum production, and that virtually 90 per cent of the possible output of the country would be sustained by fixing the price at \$6 per ton. It was the unwritten rule both of the price-fixing committee and the Fuel Administration to fix a price high enough to assure the output of about 85 or 90 per cent of the absolute maximum production of the country.

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Even if one has the cost of production of a product or service definitely pinned down—a problem of some magnitude, as has already been suggested—little more than a good start has been made toward an explanation of its price. There still remain questions as to who is going to buy it and why.

It is perfectly clear that cost of production may have absolutely nothing to do with the price of a product. A magnificent heap of dough representing choice ingredients and the painstaking care of a housewife intent upon winning a cake-baking prize may end its career as a worthless cinder if the oven is forgotten. A carnival sandwich-maker may have to consign a large share of his products to the dump heap if it rains and prospective carnival patrons stay at home. Similarly, the "less than cost" sale of clothes, while often a somewhat

deceitful lure, frequently reports honestly the fact that goods cannot be sold for what it cost to produce them. It may be that their style has not caught the public favor, that "times are hard" and people are not buying many clothes, or that men once meticulous about their appearance are now dressing shabbily in order to buy more gasoline. The possible explanations are legion but they all confirm the notion that cost of production need have nothing to do with any particular price at any particular time.

In the long run, of course, goods and services must be sold for more than they cost unless the person producing them is singularly public-spirited and has liberal financial backing. This has led some people to make the generalization that cost of production is the long-time determinant of price. It is conceded that cost of production may not govern a particular price at a particular time, but it is asserted that it must have a decisive bearing in the long run. There is no occasion to quarrel with the proposition that in the long run cost of production has an important bearing on prices. Of course, one difficulty comes in trying to settle the question of what is "the long run"; that varies from industry to industry, and from enterprise to enterprise.

The demand for a product or service, as it affects the price, is a combination of willingness to buy and ability to pay. The mere fact that a person would like to have something very badly has no effect upon price unless that willingness is effectively backed by purchasing power. Conversely and obviously, purchasing power must be attracted to a particular good or service before it has any effect upon the price of that good or service.

In view of the fact that demand depends upon both willingness and ability to purchase, it might seem possible to analyze demand by considering each of those factors separately. Such is not the case. Here, as in most of economic analysis, there are interrelated elements. The demand of wealthy sportsmen for polo ponies, for example, is not something that can be isolated and studied apart from the ability of certain people to buy such animals. There are thousands of people in the country who might like to have polo ponies, but who have not enough surplus income to purchase even a pair of riding breeches. Consequently, it is unavailing to talk about the demand for these animals without reference to the purchasing power necessary to obtain them. Similarly, purchasing power cannot be used exclusively as a guide for demand because, continuing the example of polo ponies, there are people who could afford to have herds of such animals who have no interest whatever in them.

Any isolation of these factors in demand is, then, an arbitrary and essentially unrealistic procedure. Indeed, such is the case with all

attempts at a general explanation of demand. The only safe procedure is to take a particular case and study it with reference to its own peculiarities. In such a study there are certain generalizations, based upon extended observation of the demand for a great variety of products, which may be helpful. Such, for example, is the generalization that products which are absolute essentials of human existence are subject to an inelastic demand, while the demand for those in the nature of luxuries tends to be elastic. The elasticity of demand for a product, as used in such a generalization, is defined as the extent to which efforts to purchase the product vary with changes in the price of it. A certain amount of salt is said to be an absolute essential of human existence, and at the same time the human capacity to absorb salt is rather definitely limited. Consequently, changes in the prices of salt have little effect upon the demand for it; the demand is said to be extremely inelastic. Airplane rides for pleasure are still largely personal luxuries in the United States. They are expensive. Many people who never have taken a ride in an airplane would do so if the price were brought within the limits of their budget for personal amusement. Because a lowering of the price would lead to an increase in customers seeking the thrill to be obtained, it is probably safe to say that the demand for airplane rides is elastic.

Whether the demand for particular products is elastic or inelastic can be found out only by experiment. Theoretically it would seem that the demand for foodstuffs would be less elastic than the demand for silk stockings, face powder, and automobiles. It may be so, as a general proposition; but there are thousands of young women in this country who would more readily cut into their food allowance, if forced to do so by increasing prices, than skimp themselves in their supply of equipment for personal adornment. Men and women are not scarce who will eat less bread and meat in order to burn more gasoline in automobiles. Consequently, broad generalizations about elastic and inelastic demand, while helpful as guideposts, may prove faulty in any specific price analysis; and it is with specific prices, rather than prices in general, that people find themselves concerned in endeavoring to make a living.

As has been stated, one factor in determining demand is purchasing power, fixed by income. The income of the people in the United States will be treated in detail in a later chapter. At this point it suffices merely to note that there are very sharp differences in individual and group incomes and that these differences reflect themselves in the demand for products and services. In 1918, for example, it was estimated that 86 per cent of persons gainfully employed had incomes of less than \$2,000, and about 14 per cent had incomes exceeding that

amount. "In the same year," the National Bureau of Economic Research says, "about 60 per cent of the National Income was divided among the 86 per cent of the gainfully employed who had incomes of less than \$2,000 per annum, and about 40 per cent was divided among the 14 per cent of the gainfully employed who had incomes exceeding \$2,000."

These differences in income, with individuals as with nations, determine to a large degree the amounts and types of commodities demanded. At the outbreak of the World War in 1914, according to estimates compiled by Sir Josiah Stamp, the per capita income in the United States was \$335. In Germany it was \$146. In Australia it was \$263, and in France it was \$185. Although the incomes in these countries have been modified greatly by developments during and since the war, there are still marked discrepancies. Per capita income in the United States remains the highest in the world, primarily on account of our abundance of resources, and this makes possible the much admired "American standard of living." In countries having lower incomes, there is a demand not only for fewer but for different kinds of products and services. In the United States there were in 1926 approximately 20,000,000 automobiles in use, and it is estimated that this country spends \$11,000,000,000 annually for motor vehicle transportation, the great bulk of it for pleasure purposes. In all the rest of the world there are only about one-fifth as many automobiles and their use is generally restricted to business purposes and to pleasure riding for the wealthy. It is not because people in the rest of the world are averse to using automobiles, although they may not be so thoroughly convinced of the glories of the gasoline age as are the people of the United States. It is primarily because they cannot afford them.

Some indication of how the people of the United States spend that part of their income which goes for consumers' goods is contained in the following article. It emphasizes not only American habits of consumption due to the prodigious income of the people as a whole, but also peculiarities of taste more or less typical of a youthful country.

WHAT WE SPEND OUR MONEY FOR ⁷

by Mrs. Christine Frederick

ACCORDING to Dr. Paul H. Nystrom, the retail volume or trade in the United States amounts at present to approximately 35 billion dollars annually—somewhat more than half our total income. Now how much

⁷ Reprinted from *The Annals of the American Academy of Political and Social Science*, Philadelphia, Pa., September, 1924, Vol. CXV, No. 204, pages 75-78.

does our big national family spend in the various kinds of retail stores? Dr. Nystrom figures it as follows:

In food stores.....	15.5 billion dollars
In clothing stores	7.7 billion dollars
In tobacco stores	1.7 billion dollars
In auto stores	3.5 billion dollars
In candy and soft-drink stores	1.5 billion dollars
In furniture and home-furnishing stores ..	1.3 billion dollars
In jewelry and music shops	1.0 billion dollars
In miscellaneous shops	3.0 billion dollars

What an opportunity to peek into the private family affairs of Mr. and Mrs. Uncle Sam! We see how Uncle Sam and his lusty brood "eat him out of house and home"; he spends 27 per cent of his entire income on food. In fact, he and his family eat about as much in a year as they spend on clothing, automobiles, tobacco, candy, soft drinks, and home furnishings combined. Food is 44 per cent of Uncle Sam's total expenditure at retail stores.

The outstanding fact is the very much larger place in the family budget which is occupied today by food. Ten years ago, home economics authorities considered that 20 per cent of the family income for food was as much as good nourishment and good economics demanded. The American family now spends 27 per cent of total income on food; and since this figure is arrived at by taking national income as a whole, I am inclined to believe that the actual percentage of the average family income spent for food is about 35 per cent to 40 per cent.

Consideration must also be given to the rapidly increasing amount of food eaten outside the home, in restaurants, at soda fountains, etc. There are today about 125,000 hotels and eating places—an increase of at least 40 per cent in ten or fifteen years. The habit of eating a fourth meal, a supper, grows with increased prosperity. So serious indeed, did the new family habit of eating out at cafeterias and restaurants become in a large western city, that the local gas company asked me a few years ago to develop a lively home-cooking campaign to induce women to go back to their kitchen to prepare food.

The soda fountain has emerged as an eating place, and soft drinks take rank with candy in the revised eating habits of the American family. The rapid advance in consumption of sugar is an American romance. Back in the days before the Civil War, the consumption of sugar per person was scarcely a few dozen pounds per year; today it is close to 100 pounds per person, rising from 79 pounds in 1910.

The 85,000 confectionery stores of the country sell 18 pounds of candy per person to the people of the United States—a rise of 300 per cent in a few decades. Candy and soft drinks comprise about 6 per cent of our food bill.

Strangely enough, coffee and tea are a lesser part of our family food budget than formerly.

If we include candy and sweet drinks in the family food bill, we have a total of 17 billion dollars, or almost exactly one-half of the country's total retail expenditure, or approximately $33\frac{1}{3}$ per cent of the total family budget. Our expenditures for what we put into our mouths, including tobacco, are today more than our expenditures for all else that we buy in retail stores.

I have always been fascinated with the relativities of consumption in the American family. The statistics make startling and educative contrasts. Per capita statistics open into view humanity's throbbing idiosyncrasies when they point out such contrasts as that we spend \$2.58 on diamonds per person and \$1.10 on books; \$4.15 worth on near beer and only 22 cents for dentifrices. Only one-tenth of the people in the United States brush their teeth, but we consume enough tobacco per year to pay the interest on the entire public debt.

We spend 52 cents for professional and scientific instruments and \$11.00 for advertising. We spend \$27.00 for joy riding, pleasure resorts and races, and only \$1.29 for religious work. We spend \$5.00 for jewelry; 5 cents for artists' materials and 15 cents for artists' finished work of various kinds. We spend \$3.00 for ice cream and 8 cents for professors' salaries; we spend \$45.00 for luxurious foods and \$10.00 on public schools.

We spend 65 cents on coffins and 11 cents on health service. We spend \$21.00 on automobiles and parts, and \$55.00 on men's clothing. We spend \$11.00 for candy and \$41.00 for meats. We spend, finally, \$30.73 for government expenses.

It will be pleasing to the vegetarians to note that we are eating less meat per capita. In 1900 we were eating 79.2 pounds of beef; in 1921 we had reached a low watermark of 57.8 pounds, only to indulge in our obsession for beefsteaks a little more freely as greater prosperity arrived in 1922—61.4 pounds. Our total per capita meat consumption was 185 pounds in 1900, and in 1922 only 149.7 pounds. We got it down in 1917 to 132 pounds. Farmers and packers are endeavoring to bring it back to 170 pounds.

There are many and powerful commercial forces at work with the modern tools of publicity and selling to increase the per capita consumption of foods which have been neglected for other articles. The flour millers are trying, with an "eat-more-bread" propaganda, to raise per capita consumption from 200 to 220 pounds per year. We eat only three-fourths of a loaf of bread per day per person today. Milkmen are trying to bring up per capita milk consumption to one quart per capita per day—it is scarcely two-thirds that now. The butter makers want to bring up per capita butter consumption to Australia's high level of 10 pounds above our own. Cheese makers want to raise our cheese consumption by 22 pounds per capita, to equal Switzerland's. All of these efforts

are indicative of the American family's desertion of old and cheap forms of nutriment for more attractive and varied new foods. The tremendous impetus given to fruits, vegetables, nuts, apples, raisins, and prunes by growers' coöperative marketing associations is developing a dietary change, while refrigeration cars and ships are bringing to America quantities of other foods, all of which are altering standards of consumption.

These artificial stimulations to consumption are not confined to food fields. Many articles once desired have been neglected. Cotton goods have made way for cheap silks; the young lady of whatever social station wearing cotton hosiery is today a rarity. Enamelware for the kitchen became overshadowed by aluminum, in turn, as tinware had been displaced by enamelware, until enamelware makers bestirred themselves. Suspenders were almost displaced by belts, carpets by rugs, lace by cretonnes, washtubs by washing machines, yellow laundry soap by soap chips. Always the trend is toward something better, but also more expensive; always a lift to the sum total of the family budget.

. . .

In an analysis of the demand for consumers' goods the questions involved are those relating to purchasing power and desire. The first is possible of statistical treatment, at least so far as the limits of purchasing power at any given time are concerned. People generally cannot have more than they can pay for. Even the device of installment buying, which is now so widely used in this country, does little more than postpone the day of reckoning.

The second question, why people want things, is one which cannot be readily answered by any sort of generalization. Each person makes his decision to purchase a given commodity or service for his own particular reasons. He may be dominated by the customs and conventions of the community in which he lives—in fact he usually is—but how such factors will be weighed in his decision cannot be discovered without making a personal inquiry, and then it is doubtful whether the answer obtained will be altogether honest. The man, for example, who mortgages his home to buy an automobile and show the neighbors that he is getting on in the world is not apt to disclose his true motives. Such frankness would defeat the purpose of the purchase.

All that can be said with any sense of security is that people do decide that they want to have various things, that they then test their purchasing ability to see if they can get them, and, if so, they make bids. Their bids, together with those of other persons who have come to a decision to buy for their own particular reasons, are then balanced against the prices for which still other persons—generally business enterprises—are willing to sell.

In the case of the sellers we have seen, in our discussion of costs,

some of the reasons which may lie back of their offers to sell certain articles at particular prices. In the case of the buyers of consumers' goods we have admitted that we cannot tell in any general way what lies back of the bids. Here we do no more than ask whether the prices at which buyers and sellers exchange goods are really the result of a full play of competitive forces such as is presumed to exist by those who regard our price system as a working model of the competitive ideal outlined earlier in this chapter. Do consumers in making their offers act rationally? Do they have full information at hand upon which to base expert judgments of the products they are thinking of buying? Are they familiar with the processes of production so that they can tell whether or not they are paying exorbitant prices? Do they have the power to make the sellers compete? If so, their offers will tend to drive the price of goods down toward the lower limit of cost below which sellers will refuse to dispose of their goods, and their purchases will reflect a careful estimate of their needs. If they have no idea whether they are paying too much or too little in view of the cost of production, and if they are buying without knowledge of the true merits of the product, the price system may fall short of the ideal performance sometimes accredited to it.

THE POSITION OF THE CONSUMER ⁸

by Hazel Kirk

IN THE business world, purchasing is now recognized as a specialty which requires a high type of training. Importers of such finished goods as rugs and laces send abroad purchasing experts who can judge of the quality of goods and who know about prices in foreign countries where the goods are made, and in this country where the goods are to be sold. American manufacturers who import raw materials understand that successful buying is an all-important part of their business.

While the business world knows the importance of purchasing, the ordinary person usually buys in a careless, or at least inexpert way. He does not know about the quality of goods and he is ignorant even about his own financial ability to make the purchase. How much can one afford to pay for a pair of shoes or a hat or for the rent of a house? This is a problem in the allotment of one's income. The mere fact that one has the price of a pair of shoes in his pocket does not mean at all that he can afford to buy them. He ought perhaps to have an old pair mended because he really needs the money for house rent. Very few people prepare a budget of their expenses and carefully balance the budget against their income.

⁸ Adapted from *Lessons in Community and National Life*, edited by C. H. Judd and L. C. Marshall, U. S. Department of the Interior, 1918.

In times past the family made its own goods. Every member of the family was a producer. The amount of purchasing from outside sources was small and every buyer knew the quality of what he purchased, because the range of his buying was so narrow that he could be fairly expert.

Today all is different. The family must buy nearly everything it uses. The members of the family need cloth, but they do not know about cloth making. They must buy vegetables, but they have never had experience in cultivating a garden. They must buy meats, but they have never had to do with live stock.

With the changes in home life which have come with modern industry, the housewife has gradually taken on the duties of purchaser for the family.

That the housewife is, in fact, the disbursing officer of the income has long been recognized by those who offer for sale the articles which the modern family buys. The best advertising media are the magazines which women read. It is these women buyers who crowd the shopping districts and the department stores of cities. It is with women, mainly, that the grocer, the butcher, and the milkman, the iceman, the laundryman, the vegetable and fruit vender must deal. All these facts bear witness to the purchasing activities of women, and we have the testimony from countless households that it is the custom for the father to earn the income and for the mother to spend it.

In only one department of family economy has scientific knowledge given much aid to the housewife—in buying food. Here there are some definite rules, based on known food values, to guide the housewife in her expenditure. We know that the family diet must contain a certain amount of protein, a certain amount of fat, and so on, if the diet is to be wholesome.

In almost all other lines, practical experience is the only guide, and without definite tests as to what is rational the expenditure becomes largely a matter of imitation or emulation of others. It is astonishing how purchasers get into the habit of going to a certain store because it is the fashion. Or they buy a given brand of goods because it is widely advertised. There are, of course, in the long run very close relations between the success of a seller and the high quality of his goods but there are, on the other hand, many false reasons for the temporary success of a certain dealer or a certain kind of commodity.

. . .

In the discussion of supply and demand earlier in this chapter, no distinction was made between those goods designed for immediate consumption, and those more durable goods which are expected to yield an income over a period of time, such as automobiles, stocks and bonds, and houses. In the case of this latter class of goods, the previous discussion of supply and demand is entirely applicable. In addition, however, there is another factor which may play a part in determining

the supply of and the demand for such products. This is the process of computing the present value of future incomes, which is generally known as the "capitalization process." In the case of stocks, bonds, annuities, *et cetera*, which embody contracts to pay a definite sum of money over a series of years, the capitalization process is a major factor in determining both the supply and the demand. In the case of pianos, automobiles, or shoes, designed to yield a continued income of service which is not readily determined in terms of price, the process of capitalization is of less importance in determining supply and demand. In all cases, however, where the problem is that of attaching a present price to a series of incomes to be made available in the future, this process, described in the following statement, may be of importance.

THE CAPITALIZATION PROCESS

THE price or market value of durable goods and long-time assets will largely depend on what buyers are disposed to offer and what sellers are disposed to ask. So far, they do not differ from other classes of goods. In predicting what these bids will be, however, there is one guide to calculation and price determination which is of very great service. It is usually called the capitalization process, the process by which the present worth of future returns is calculated. If we know the price of the current service or income yielded by these long-time goods, and the prevailing rate of interest for that time and place, the total value of the goods can be roughly determined.

Take a share of stock as an example: I possess a share of stock in the X Rubber Company, which means that I am part owner of the concern, and am entitled every year to a part of the profits. Suppose that the dividend on my share amounts annually to about \$12, and the concern is so well managed that I can be quite certain of receiving this amount year in and year out; if it is slightly under \$12 one year, it will be slightly over that amount the next year. I wish to sell my share outright. How much is it worth? I already know the current income from the share. All I need to know now is the prevailing rate of interest on an investment of that nature. The risk is slight, so we will take an interest rate of six per cent, let us say. How much is \$12 per year worth on a six-per-cent basis? This is equivalent to asking six per cent of what sum will give \$12? Simple arithmetic gives \$200 as an answer. That sum is, roughly speaking, the market value of the share of stock, and if the buyer at the stock exchange is well acquainted with the circumstances of the X Company, that is just about the price which he will offer. If the annual dividend were only about \$3, the buyer would offer only \$50 for the share.

Such an example of the capitalization process is so simple and obvious that it is recognized everywhere, and usually taken for granted without

much thought. In some cases, however, the beginning student of economics is often puzzled by the general rule that when the level of interest rates goes down, the selling prices of bonds go up, and *vice versa*. How can this be accounted for? Let us say that a bond of the Y Company, representing the company's indebtedness to the bearer to the extent of \$100, pays interest at the rate of five per cent, and sells on the market at its par value of 100. The general level of interest rates for that class of risks then drops to four per cent. But notice that the bond still pays five per cent on \$100, for that is part of the contract. What is the bond worth now? It is obviously worth more than it was before, since it is paying more than the customary rate of interest. The question then becomes, what is a \$5 income worth on a four-per-cent basis? Five dollars is four per cent of \$125, so the bond sells at \$125 instead of \$100. A drop in the general level of interest rates has boosted the market value of the bond. If, on the contrary, interest rates had risen, the bond would have correspondingly fallen in value. Of course, this calculation considers only current yield, ignoring such factors as date of maturity and premium at maturity.

It should be noticed in the examples given above that "the prevailing rate of interest" is assumed to be known. Such a rate represents an abstraction, of course, and it may be found to be a very unreal abstraction. It may be doubted whether any "prevailing rate" exists at all. Interest rates vary greatly and depend on different people's judgments of many factors, including that of the degree of risk in investment, as has already been noted. Calculation in terms of the capitalization process depends, then, on two rather uncertain elements, since the factor of current income is subject to uncertainty as well as the prevailing rate of interest. For purposes of rough approximation, however, the capitalization process remains useful.

According to some economists, this capitalization process can be applied to any durable good which yields a service with passing time. As Herbert J. Davenport says in his *Economics of Enterprise*, "The price not only of every investment in stocks, or bonds, or farms, or business blocks, or tenement houses, or annuities, but as well of every investment in houses, or furniture, or pictures, or books, or bicycles, or automobiles, or senatorships, is the present worth of what the investment will return in income—whether a money rental of interest or of dividends, or beauty, or comfort, or leadership, or fame."

. . .

In this chapter we have considered some of the factors which may be of importance in the determination of particular prices. We have seen how supply may be affected by cost of production, and we have sought to give some content to the term "cost of production" by considering different types of cost situations. We have seen that demand is limited by what people want and by their purchasing power. We have attempted a meager analysis of the demand for consumers' goods,

considering both purchasing power and desires. In the case of goods to yield a series of incomes in the future, we have seen how supply and demand may be affected by the process of capitalization.

In the explanation of how prices are determined, a study of the factors tending to limit supply and demand in a purely competitive situation is but the first step. There are all types and degrees of competition from the competition of great international combinations carrying on a struggle in all parts of the world, to the competition of corner notion-store dealers for the penny candy purchases of school boys, and from fierce cut-throat competition to almost absolute monopoly. Upon the type and the extent of competition depends to a large extent the price of any particular commodity or service.

Because of the fact that particular prices can only be understood by referring, among other things, to the degree and kinds of competition which prevail, the next four chapters will be concerned largely with the question of competition. First we will consider some of the forms which competition is taking in our present economic organization, and then we will turn to a series of situations where there is formal interference with what otherwise might be a free play of competitive forces.

QUESTIONS

1. "The fact that the business man asks, 'Will it pay?' before deciding to produce a commodity simply means that he asks, 'Is this commodity the thing that is most needed in society right now?'" Outline the conditions you think would have to prevail before this statement could be regarded as strictly correct.
2. In case an enterprise has a large volume of overhead costs, do you think the total cost of producing the product or the direct cost will be the more important factor in influencing a decision regarding the selling price to be charged? Under what conditions and for what length of time? What data do you need to attempt to answer this question?
3. Is there any validity in the distinction between the business man's and the economist's definitions of cost? If so, what is it?
4. "Overhead costs are seen to be a universal fact." Explain.
5. If it is impossible to tell how much it costs to produce either the pumpkins or the corn raised on the same plot of ground, how can the farmer tell whether or not he is making a profit on pumpkins?
6. Trace the price of gasoline and the price of kerosene over the past twenty-five years. Is the fact that gasoline has gone up during that period and kerosene down due to changes in the cost of producing them? If not, to what is it due?

7. "Greater production by a firm always results in lower unit costs." So?
8. Larger demand often causes a decrease in price. Larger demand often causes an increase in price. Can both of these statements be true?
9. What notable results were accomplished by the war in changing people's eating habits? Is it true that the war was a remarkable period of discovery for the consumer? If so, how did it happen to be?
10. Would you expect a poll of candy producers to show a majority in favor of or opposed to a repeal of the prohibition law?
11. We are all consumers. What difference does it make, so far as the effective use of goods and services is concerned, if we are all ignorant of the science of buying as long as we are all about equally ignorant?
12. A railroad protects a grade crossing with a watchman who is paid \$1,000 a year. At a cost of \$14,000 the grade crossing can be eliminated. Depreciation and other current costs connected with the abolition of the grade crossing would amount to \$300 per year. The rate of interest which the railroad would have to pay for funds is five per cent. Assuming that both arrangements are equally efficient in preventing accidents, would the railroad continue to hire the watchman or eliminate the crossing?
13. Outline a rational basis for determining how much to pay for an automobile. Compare this outline with what you believe to be the general procedure in buying an automobile.
14. Why are supply and demand inadequate data for explaining how any particular price is determined?

NEWER FORMS OF COMPETITION

THE purpose of this chapter is to present a series of competitive situations which will throw some light on the nature of modern competition. It will include:

1. A statement outlining different patterns of competition, including the relationships between them.
2. The relation between overhead costs, new industrial technique, and business competition.
3. Regional competition and the migration of industries.
4. Competition between parties of unequal strength.
5. Trade associations and intercommodity competition.
6. International competition for raw materials and markets.

AT THE outset of the last chapter we undertook to show how prices are determined. We immediately discovered what any man in the street can tell you, that they are determined by the law of supply or demand. We then found that "law" to have two general uses. One use is that of a rallying cry for business men who want to throw off unwelcome restraints. The other is as an explanation of how prices are determined. When used in the latter rôle, it was discovered that the validity of the "law" rests upon the assumption that "there is competition among both buyers and sellers." After considering a statement of the way in which competition might work in Utopia, we turned to a study of some of the factors bearing upon supply and demand.

Even if we had succeeded in mastering the final intricacy of the factors bearing upon supply and demand, we would only have brushed the surface of an explanation of the price system. That is because we considered competition only as an ideal, and not as it manifests itself in the world today. The statement of the competitive ideal was replete with assumptions. It assumed, for example, that the cost of production of any commodity is a sort of automatic traffic signal directing producers to expand production when their business yields a surplus over cost of production and to curtail production when it falls below the line. It also assumed that producers of the same or similar products have equal access to customers. It assumed, as well, that buyers and sellers are equally well equipped to judge the merits of the products in which they are dealing, and have equal strength in carrying out the dictates of their judgments.

How do these assumptions, and many more contained in the statement of the competitive ideal, stand up when exposed to the actual conditions of modern economic life? Is there a sort of formula of competition which can be applied to those enterprises commonly described as competitive? Or is "competition" rather a blanket term used to cover a vast array of situations differing not only in detail but in their essential characteristics? And, if so, is it safe to make a general assumption about the way competition works, or is it necessary to examine the particulars of each situation described as competitive in order to understand it? These are questions to be answered before the "law" of supply and demand, which assumes that there is "competition among both buyers and sellers," can be accepted as throwing clear light on how particular prices are determined.

In this chapter we will endeavor to give some content to the term "competition," not by a further theoretical exposition of what it is assumed to be, but by sketches of the forms it takes in modern economic life. The first article gives a compact view of the amazing crisscross of the rivalries summed up under the blanket title of "competition" as it is found today.

MODERN BUSINESS COMPETITION¹

by O. H. Cheney

IN THE good old days (meaning almost anything more than thirty days ago) distribution was along a straight line and competition was along other straight lines—at right angles to it. In other words, the line of distribution was from producer through wholesaler and retailer to consumer. The lines of competition were between producers turning out similar products, between wholesalers in the same line, and between retailers selling practically identical goods.

The old competitive methods ranged from price-cutting to arson, including slander, bribery, espionage, man-stealing and fomenting strikes. Competition was competition in those days. When two competitors happened to meet in the same room it was against business ethics for more than one to be able to leave the room unassisted. But nowadays, when two men in the same line meet, they start talking about coöperative advertising or standardizing sizes, eliminating unnecessary styles, uniform cost accounting or standard terms to the trade. And, if certain senators from the middle west are not within earshot, they may actually talk of a merger.

The new competition is like the new art—the few simple lines which we could recognize and understand in the old competition have been replaced by a confusing crisscross of angles and curves. Distribution becomes direct and cuts corners in some fields, in others it becomes more

¹ Adapted from an article in *The Nation's Business*, June, 1926.

intricate with new middlemen. Competition breaks away from old lines and jumps across established methods.

The new competition is, broadly, pressure for distribution outlets. Where this pressure was formerly exerted within certain established channels, the intensity of competition has broken these down and is making its own channels. The basic reasons for these terrific and newly directed pressures are, of course, the surplus plant capacity available for production and the tremendous progress in the arts and sciences of promotion and exploitation through advertising, publicity and salesmanship.

These pressures are impatient; they will not allow the stream of distribution to work through from producer to consumer at the old, slow rate. And this accounts for numerous merchandising phenomena which, seen alone, seem strange and often inexplicable; but when they are viewed together from this angle are seen really to be different currents in one stream. Such phenomena, for example, are hand-to-mouth buying, installment buying, direct selling and group buying.

This distributive pressure, in almost every line of business, assumes the form of intra-industrial competition. Not only do retailers compete with each other, wholesalers with each other and manufacturers with each other, but individuals in each group compete with those in other groups—often with those who may be distributing or manufacturing their products.

This competition may be observed, at the very beginning of the process, with the producer of the raw material. The dairy farmers join a league which buys milk routes and milk-products and ice cream plants, entering into competition with their own customers. A copper mining company buys a brass factory. Growers in many agricultural lines form gigantic coöperative marketing organizations. Manufacturers become dissatisfied with the volume which they are selling through wholesalers and begin to sell direct to the retailers, as in the grocery field.

Both manufacturers and wholesalers enter into competition with the retailers by organizing chains of retail stores. They go even further and try to eliminate the retailer and sell through house-to-house canvassers, as in the case of hosiery or household appliances; further still, they try to eliminate the canvasser by using the mails, as in almost every conceivable type of goods; and even further, try to eliminate every selling method by getting the buyer to do more selling, as in the recent "endless chain" schemes for selling hosiery.

This distributive pressure does not work in only one direction along the line of distribution; it works in the other direction also. The flow of distribution is accelerated not only by the pressure of production but also by the vacuum of merchandising. Outlets want goods to sell, goods which they can sell more quickly and on which they can make more profit. This type of the new competition also takes on many interesting forms.

The most striking and successful is, of course, the chain-store system,

as in groceries, dry goods, variety goods, tobacco, and the like. By multiplying outlets under one control, the retailer assumes the function of the wholesaler and competes with him. Independent retailers combat chain competition by organizing group buying associations or combining their buying power through resident buyers, as in the dry goods field. Chain and group retailers go even further and enter the producing field, entering into competition with the manufacturer, and frequently the wholesaler does likewise.

This "pulling" force to attract goods and to control the source of supply goes still further back along the line of production and distribution; automobile manufacturers buy parts factories, sugar refiners buy cane plantations, tire manufacturers buy rubber and cotton plantations, canners subsidize fruit and vegetable growers.

And these two forms of intra-industrial competition become the logical basis of the vertical trust, in which we may possibly see important developments in this country in the next decade.

But this intra-industrial competition, this conflict of distributive pressures along the line of distribution, is only one type of the new competition. There is the competition between two divisions of the same general industry which produce commodities used alternatively. This type we may call inter-commodity competition.

When the weary rent-payer decides to build, he becomes the object of competition between lumber, brick, stone, Portland cement, tile and new combinations—not to forget slate, treated wood, shingle, asbestos, copper, zinc, and asphalt compositions for the roof.

When his wife answers the call of spring with a new dress she is confronted by the competition of cotton, wool, silk and rayon and the almost countless number of varieties and combinations of these. And the number of products which compete for a place on the dinner table is even less calculable.

In the same category, for instance, is the competition of fuel oil with coal; of the motion-picture with the theatre, the radio and the book; of the automobile, bus and truck with the railroad and street-car; of magazine, newspaper and billboard for advertisers. That this type of competition is increasingly recognized is proved by the growth of trade associations and of their constructive coöperative activities on behalf of all interested in a particular commodity or service, and sometimes of destructive efforts against competing interests.

But again, inter-commodity competition is also not one-way competition. There is not only the competition of commodities for outlets but of outlets for commodities. There are hundreds of products, for instance, which are sold in hardware, drug, grocery and department stores. There is a natural tendency of almost every kind of store to follow the liberality of the drug store in interpreting its functions. Only Mr. Wrigley knows all the different available outlets for chewing gum. Real estate and automobiles are being sold by department stores,

Of all the forms of the new competition, the one with probably the greatest economic and social significance is that of inter-industrial competition,—the competition of all industries for as much as they can get of the national income—for their share and more of the consumer's dollar. Installment selling is the dominant manifestation of this inter-industrial competition. The industries using it have unconsciously recognized that, in spite of the high income and purchasing power of the American people, there are limitations. Realizing that this week's pay envelope is pretty well exhausted, they are making organized attempts to assure themselves a good share of next week's. There is no question that installment selling stimulates demand, increases production, and therefore tends to raise the level of prosperity and buying power. There is no doubt that this accelerated speed of the wheels makes for a feeling of economic exhilaration and social well-being. The question is: How long can this acceleration be maintained? Can the wheels stand this speeding up?

"The automobile industry did it; why can't we do it?" This is the logical question which one industry after another is asking itself and answering in the affirmative. Who can deny that the present prosperity of the automobile industry is the result of time-payment sales when fully three-quarters of the vehicles sold are financed? Who can deny to the clothing manufacturers, to the paint manufacturers, the right to sell on time? But what can be done about it if the aggregate of installment buying goes too far? The answers to these questions will have to be faced by business in the next few years.

Overshadowing all these types of competition in the vastness of its effects is international economic competition. True, it is old, but its effects are ever with us—more violent than ever in the last decade. Every day brings new evidence that the distributive pressure of nations is becoming more intense. The techniques of exploitation which have been developed in internal competition have been held in abeyance because of economic difficulties in other countries. When they become active, it is difficult to prophesy what the next few years will bring.

The drama of the new competition becomes more absorbing, more vivid, more hectic. It becomes universal in its sweep. It is impossible for any one to see it all, because we are all actors as well as audience. And unless we can break away and see clearly, it may be too much for us.

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In the previous article it was stated that "pressure for distribution outlets" is the principal driving force in the competition of modern industrial enterprises to dispose of their products. Why should this pressure be so severe? Is there anything about it to suggest that it is a peculiar characteristic of this era of large-scale machine production? The following brief selection suggests that there is; that the large volume of overhead costs in modern industry accounts in substantial measure for this competitive pressure. In the statement of the competitive ideal there was no mention of "overhead" costs. As we

proceed we will find that this outstanding characteristic of modern mass production calls for important amendments to the conventional formula of competition, and also contributes on occasion to the elimination of competition by inviting various forms of monopoly.

THE SITUATION OF THE BUSINESS MAN ²

by Willard E. Atkins

THE business man is in a precarious situation. The increase in the market in both a geographical and a time sense which is being brought about by improvements in transportation, communication, refrigeration and like devices, forces him to make changes in his methods to meet the new conditions. Moreover, the growing importance of indirect or overhead costs tends to make capacity output a coveted goal for both him and his competitors. Where the overhead costs constitute a considerable per cent of the total production costs, a variation of ten to twenty-five per cent in the volume of production may mean either prosperity or bankruptcy. Thus we find business men constantly changing their methods in the drive toward more sales, and at times pushing goods into the market in such quantities that they cannot be profitably moved.

In the light of this constant striving to enlarge the volume of business in order to absorb an increasing volume of overhead costs on the one hand, and the complementary attempt to reduce manufacturing and selling costs to the advantage of profits, it is not difficult to account for the host of changes in marketing which the world has witnessed since the early 'eighties; national advertising, the department store, the chain store, the mail-order house, direct selling, etc. How to secure the most profitable price; how to be certain that one's customers will not be diverted to other products; how to find an outlet for the total plant capacity;—these are questions that bulk large in the mind of the business man.

. . .

Competition, as it manifests itself in the markets of the world, is between individuals, firms, and industries. It is not England which is competing with Belgium in selling textile machinery in Brazil, or West Virginia which is competing with Pennsylvania in selling bituminous coal at the ports of the Great Lakes. Rather it is individuals representing firms located in these places. The success of the individuals and firms, however, may depend upon the resources which their respective communities offer. Thus, indirectly there is introduced what is sometimes called "regional" competition, a factor which may determine the success or failure of enterprises without reference to the skill of the management or the quality of the products offered for sale.

² From an unpublished manuscript.

At present a manifestation of regional competition is seen in the steady southward migration of the textile industry. Other industries are on a trek toward the Middle West and the Pacific coast. This is caused by the discovery of business leaders that certain sections provide peculiar advantages, such as labor supply, marketing facilities, or proximity to raw materials. For those seeking sites for new plants the problem of location is an extremely difficult one, involving, as it does, a weighing of the blandishments of the numerous "go-getter" Chambers of Commerce which seek new industries. For those industries already located, the discovery of major competitive advantages in other sections of the country is often fatal, a type of fatality not accounted for in the ideal working of competition.

The first statement which follows gives some illustrations of regional competition and industrial migration, while the second is a news item showing how manufacturers are sometimes induced to make a shift of location in the search for advantage in the labor supply.

REGIONAL COMPETITION ³

by Alfred P. Dennis

NOTHING stands still under the pull and push, the squeeze and suction of the powerful, invisible forces which determine the movement of industry. The fundamental pull is to the earth, that is, to the locality of the existing plant. But certain countervailing forces are always in operation: the labor pull, the raw material pull, the distribution pull, the transportation pull.

One may discern, for example, a movement of the boot-and-shoe industry from New England westward. In the State of Massachusetts is concentrated fully one-third of the boot-and-shoe establishments of the entire country. But boot-and-shoe factories have sprung up in recent years to the number of fifty-four in the State of Missouri. The pull westward is based on marketing considerations. From the standpoint of marketing, an establishment in St. Louis enjoys a less competitive selling radius than an establishment in Massachusetts or New Hampshire.

The boot-and-shoe business is less dependent upon hereditary New England labor than it was a generation ago. It is becoming less and less a handicraft and more and more a machine product. The old-time shoemaker was a skilled worker—his craft was hereditary. Men living today can remember when they were measured for footwear by the village shoemaker, who did every bit of work on a pair of shoes with his own hands. Today a shoe is built by hundreds of different operators who feed pieces of leather into machines.

The southward creep of the cotton-textile business is also worth

³ Adapted from "Industry Gets the Wanderlust," *Nation's Business*, May, 1925.

analyzing. Measured in terms of quantity rather than quality, the center of gravity of the world's cotton spinning industry has already passed from old England to New England, and is now visibly passing from New England to our southern states. The 36,000,000 spindles in the United States are turning out about twice the weight of cotton yarn produced by 157,000,000 spindles in Great Britain. With a surplus of skilled hereditary labor and better climate conditions, the British mills concentrate on the spinning of fine counts.

These conditions are somewhat reversed in the American industry. Here labor is more of a factor than in Lancashire. Precisely the same forces are now in operation as between our New England and southern mills, labor being cheaper and more plentiful in the south. This means that the New England mills must either concentrate more and more on fine counts or else equalize the labor differential by establishing mills in the south for spinning the coarser yarns. At the beginning of the century who would have prophesied that within twenty-five years the southern cotton mills would be splitting about 50-50 with the New England mills in the number of spindles and would be consuming more than twice the amount of cotton? While the New England mills are fairly holding their own when it comes to quality, they are losing ground in the manufacture of the coarser fabrics. Hence it has become a matter of moving southward in order to survive.

Along with this major migration southward we may detect a minor migratory movement from the city to the country. Modern mills, particularly in the south, have elbowed their way out of the cities into the suburbs. This means that the new mills are forming the centers of village communities run on a patriarchal system under which the mill owner keeps his labor content in rustic surroundings by providing community schools, moving pictures, gardens and other reliefs from the tedium and isolation imposed upon dwellers in the country.

It is a rather striking fact that our agricultural center has moved westward more rapidly than our population center, and the population center in turn more rapidly than the industrial center. The center of population has moved steadily westward. One hundred and thirty years ago the center of population was at Baltimore; by 1920 it had marched to southwestern Indiana. In the past four decades the centre of agriculture has shifted from Washington County, Indiana, to Perry County, Illinois, representing a westward migration of 272 miles with a dip southward of 54 miles.

In the same period the manufacturing center has moved from western Pennsylvania to Logan County, Ohio, with a westward march of about 200 miles and a southern slant of around 25 miles. Will the industrial center of the country ever succeed in catching up with the population center, and will both in time overtake the agricultural center?

New forces are now beginning to operate. Industrialism grows apace on the Pacific coast. The question is seriously mooted as to whether in

years to come the Pacific rather than the Atlantic may not become the chief theatre of our foreign-trade operations, just as with the westward march of civilization the Mediterranean gave place to the Atlantic stage in the commerce of the world.

INDUSTRIAL MIGRATION AND LABOR⁴

NEW YORK, November 18.—As a result of the failure of negotiations to end a three-weeks' strike among its operatives, owners of the Hillcrest Mills have announced the removal of their plant to High Point, N. C., according to a story appearing in the *New York World* this morning. The *World's* story follows:

"In spite of the pleas of a diminutive priest who preached to them as to naughty children, the 250 striking weavers of the Hillcrest Silk Mills in West New York, N. J., last night rejected the company's compromise offer to end the three weeks' strike which has left many of them penniless.

"As a result of their failure to accept the company's offer, officials of the mills announced negotiations have been closed and they will move their home to High Point, N. C. Already 120 looms have been removed and last night forty-six more were being taken from the West New York Plant."

. . .

In the statement of the competitive ideal, the test of success of competing enterprises was seen to be their relative efficiency in producing high-grade products at low prices. It was assumed that competitors would have equal access to customers. Is it always safe to make that assumption? There are those who say that it is not, and that the deciding factor may be unequal strength of the competing parties rather than their efficiency in producing high-grade products at low prices. This inequality of strength, they assert, may be due to differences in financial backing, or it may be due to various kinds of economic pressure which the stronger party is able to exert over the weaker.

The following story is a possible case in point. It concerns the experience of a fruit grower of Armona, California, who tried to sell his raisins directly to the public instead of distributing them through the regular trade channels. His failure was apparently not due to a violation of any "economic law" nor to any deficiency in the raisins or the prices he was quoting. He claimed that the failure was due to the fact that an organized trade applied all sorts of pressure against him. It was a competition between an individual and a powerful group of interests. The result is partially indicated below.

⁴ From the Raleigh, N. C., *News and Observer*, November 19, 1925.

DAVID AND GOLIATH IN THE MARKET⁵

by Dallas H. Gray

IN THE fall of the year, when the crop is harvesting, the farmer would go to his fruit packer and say, "Well, Mr. Packer, what are you paying for raisins today?"

The fruit packer would then say, "Oh, I don't know. We are not really buying raisins now." To which the farmer would reply, "But I need some money, and I would like to sell my crop. I have a note due on the first of the month, and I would like to get some advances on my crop. What will you offer?" The packer, noting his financial anxiety, would offer a ridiculously low price, saying, "I will give you 4 cents a pound for raisins," for instance. And the grower, knowing that he could not produce the product for that amount of money, would say, "Well, I cannot produce them for that." The fruit packer would reply, "We cannot help the price; we are offering you more now than we can afford. We cannot help the price we are offering you, because there are still some 20,000 tons of raisins carried over from last year which have not been sold." So the farmer would refuse to sell at this price, only to find further reduction in price the following week.

My frequent trips to the large markets in the East showed that the retailer was paying from 20 to 60 cents per pound for our raisins when sold through the regular channels of the trade, and showed me conclusively that the price paid by the consumer was between 5 and 15 times as great as the price I received as a grower. That is, the retail price was 20 to 60 cents per pound for our raisins, peaches, prunes, and apricots for which the grower was only receiving from 1½ cents to 3 cents per pound. I had for four successive years lost heavily; in fact, my receipts averaged \$4,000 below my cost of labor and production. I thought that I had done almost everything that could be expected of me in going to the natural channels of trade, so I decided then to go direct to the consumer with my product. I was told by some of the growers who had tried to go direct to the consumer and who had heard of previous methods of direct selling to the consumer that it would be impossible; that I would not get past the first town in selling my product; that the jobber would direct the wholesalers and the retailers to cut prices on my product and by other means of intimidation drive me out of the business, by reducing their prices much below what I could afford to sell for.

I believed then that I knew a little more about the situation than they did, and I did not take their advice in desisting from this method of selling. My slogan was, "Vineyard and orchard to home." The first car of cluster raisins was ready for shipment on about the 3rd day of November, 1912.

⁵ Adapted from testimony before a Subcommittee of the Committee on Agriculture and Forestry, United States Senate, Sixty-seventh Congress, Second Session, pursuant to Senate Resolution 211, March 23 and April 21, 1922.

In four years of this method of distribution my crews of men visited every town of any size and importance in Iowa, Minnesota, and Illinois, and the northern half of Indiana. One of the principal points of attack against my method of distribution through direct selling, was for the retailers to reduce prices on the kind of products which I carried, immediately upon my appearance in town. Another instance of opposition was that of J. J. Grove, of Ames, Iowa, who sent a boy down to my car to secure a 5-pound carton of cluster raisins, then tore it all to pieces so it would look disheveled, and sprinkled coffee dust over it so it would look as if the worms had eaten it.

Being at considerable distance from the center of the town I requested of Mr. Fuller of the Chicago, Rock Island and Pacific that he make a diversion of my car to his tracks, so that I could put it down near the high school at the Union depot where it would be in the center of the town. He replied that this could not be done, as his company could not permit its sidetracks to be used for unloading purposes when goods had been shipped over competing roads. I immediately looked up the interstate traffic rules on this, and found that if I wanted to pay a diversion charge, which was rather excessive, the road would have to take my car on its line. So I demanded this of Mr. Fuller. He again replied that he thought it quite impossible, and stated that the asking of this privilege had put him in an embarrassing position, as the retail and wholesale organizations of the city would make a complaint about his affording me special privileges. He also said that if I wished to take this matter up with the Commercial Club of the city, (which is made up of the retailers and wholesalers and other business men of the city), and if I would get a letter from them requesting that he make such a disposition of my car, he would immediately do so. Otherwise he could not see his way clear to antagonize local interests.

It was usually my custom in going into a town to first go to the mayor of the city and make friends with him, if he had not been a wholesale grocer or broker, and then to the banks and the newspapers and others whom I wished to be friendly to my enterprise. The mayor of this particular town of Cedar Falls was a very reasonable individual, and he argued with me: "Why is it that you come into this town and compete with our local retailers in the disposition of your goods?" I then recited the reason—that I could not get cost of production by any other method. "Well," he said, "if there are grocers here that will take your goods into their stores, will you put those goods into their stores and have them sold there, allowing the grocers a reasonable profit?" I said, "I surely will," and I did that very thing in Cedar Falls, Iowa.

I had not been in the local store more than three days when I learned that a representative of the wholesale jobbers in Des Moines was in town. The jobbers were working among all the retailers in town to put a boycott on the proprietors, cut the prices on all kinds of raisins, and run me out of business. The matter was taken up before the commer-

cial organization, where I was present as guest, and the members denounced me for coming into their town.

I went to Minneapolis about the first of May, 1913, as I was then finishing up my season's operations and had just two cars left. I went to Mr. Clifford, of the *Minneapolis Journal*, and said as usual: "Mr. Clifford, I would like to take out some advertising in your paper." He said, "You are selling something?" I answered, "Yes." He said, "You are advertising something?" I replied, "Yes, I am advertising and selling raisins and dried fruits direct from my vineyards and orchards in California to the consumers." "Do you sell out of the retail stores?" he asked. "No," I replied, "I sell right out of my car." He finally said, "Well, we cannot take your advertising. We cannot allow any person or concern to come into this city and compete in price or quality with our local retailers."

There were many instances where I was arrested for selling without a license, although I was exempt from the license requirement, according to the civil code of the United States, because I was selling a farm product. This fact was brought to the attention of the district attorneys, but in spite of it I was in many instances persecuted and prosecuted for my efforts.

. . .

Among the types of competition mentioned in the opening article of this chapter were "inter-commodity" and "inter-industrial" competition. These important forms of competition have given rise to and been stimulated by the formation of trade associations. Some of the activities of these coöperative organizations are discussed in the following selection. In so far as these activities stimulate competition between commodities and industries, they must be reckoned with as a powerful competitive force. But what effect do they have on competition between members of the same association? Do they tend to reduce the intensity of competition between firms in the same association? And, if so, can they be reconciled with the competitive ideal? These are questions to be considered in determining just what sort of competition exists in those industries where coöperative activities are highly developed through trade associations.

TRADE ASSOCIATIONS ⁶

by Richard Boeckel

TRADE associations have come during recent years to constitute one of the chief coöperative agencies by means of which modern business functions. Their rise to importance has been rapid and promises in the future to be still more striking. There are at present few commodities or services of importance that are not represented by one or more asso-

⁶ Adapted from an Editorial Research Report, June 6, 1925, Washington, D. C.

ciations. It has been estimated that there are now as many as 25,000 trade associations in the United States. This figure undoubtedly includes chambers of commerce, professional and technical societies which cannot be classified as trade associations in any strict sense. The *Journal of Commerce* has estimated that the number of trade associations in the United States was 3,200 in 1912 and 11,230 in 1923, an increase of over 250 per cent in about a decade. The present number of strongly organized national, as distinguished from local or regional, associations is fixed by the National Industrial Conference Board at 180.

The activities of trade associations cover a wide range and embrace a confusing variety of interests. A complete study of the subject would require detailed consideration of more than forty major lines of work. The principal lines of activity of trade associations may be grouped as follows:

- Industrial research
- Standardization and simplification
- Cost and accounting methods
- Coöperative advertising
- Traffic and transportation
- Insurance and credit
- Government relations
- Business statistics

While no association gives exclusive attention to any one line of work, it is usual for one feature to receive the principal emphasis, with others taking places of secondary importance. Thus one association may feature its statistical work, another its legislative bureau at Washington, another its advertising, but each of these will engage also in other forms of trade association service in some degree.

Trade associations in recent years have given increasing attention to commercial and industrial research, this activity growing naturally out of research work conducted by individual concerns. The members of any particular trade, by combining to establish central research bureaus and laboratories, enjoy advantages of scientific investigation at comparatively small cost. Duplication of effort is avoided and attention is concentrated on fundamental problems of the entire industry, rather than individual problems, the solution of which promises immediate profit to a few concerns.

The investigations of the Laundryowners' National Association into the effects of various kinds of soap on fabrics, and the resistance of various fabrics to cleaning and rubbing, have produced striking results. Notable improvements in tanning hides have resulted from the experiments of the National Tanners' Council. The Portland Cement Association has made important discoveries in methods of mixing and moulding concrete.

In the effort to combat industrial waste through simplified practice,

trade associations have taken a leading part. This work usually comprehends the reduction in varieties of products manufactured by an industry and the adoption of standards, particularly dimensional standards, for the types retained. Germany up till this time has held the lead in the movement for simplified trade practices. Its value does not appear to have been recognized in the United States until the last years of the war.

While some of the savings resulting from elimination of waste through standardization undoubtedly are passed on to the public, and the movement appears to be directly in the public interest, it has been pointed out that standardization may readily become an aid to price fixing. The prices of standard articles tend to uniform levels, and are more easily controlled through tacit understandings than the prices of articles manufactured in wide varieties.

During the last ten years trade associations have entered the field of national advertising on an extensive scale. It is estimated that trade association expenditures for advertising now approximate \$10,000,000 annually. The purpose of association advertising in general is to convince the public that the industry as a whole is worthy of increased patronage, that the products of the industry have merit and utility, and to correct public misapprehensions.

The National Oil Paint and Varnish Association estimates the worth of the slogan "Save the Surface and You Save All" to the paint and varnish industry at \$1,000,000 a word. Other slogans that have become well known to the public through association advertising are:

"Nothing Takes the Place of Leather"

"Say It With Flowers"

"Remember—Everybody Likes Candy"

"Concrete for Permanence"

"Copper and Brass are Cheaper—You Pay for them only Once"

The usefulness of trade associations to combined competitors has been largely increased through the assumption of special service activities some of which have heretofore been performed by independent agencies. These activities relate principally to traffic and transportation, credit and collections; trade-marks and patents, insurance, commercial arbitration, negotiations with labor, and exports to foreign markets.

Traffic and transportation bureaus of the trade associations are concerned primarily with railroad rates and freight classifications, keeping track of changes in rates, and advising members of classification changes. They seek also to secure adequate car supply for their members in seasons of car shortage.

Credit bureaus of the association are modelled on commercial agencies. They supply credit information regarding the customers of their members, investigate and report delinquent debtors, and a few undertake the collection of overdue accounts.

Trade-mark and patent bureaus are maintained for purposes of investigation and for the protection of trade-mark and patent rights of association members. The Patent Department of the National Automobile Chamber of Commerce a decade ago brought about the automobile patent pool for the cross-licensing of automobile patents.

Insurance bureaus are established to provide insurance for trade association members at lower rates than would be otherwise obtainable. It is felt that men thoroughly familiar with an industry can better rate its risks than outside agencies.

Commercial arbitration is promoted by many trade associations through agreements to submit all disagreements to arbitration without resorting to threats or litigation, and the maintenance of lists from which disinterested arbitrators may be selected in all parts of the country. It is felt that the arbitrators thoroughly conversant with trade usages and customs are often in a better position to render just decisions than the courts.

Negotiations with trade unions on a national scale are undertaken by various associations on behalf of their members, through trained negotiators. A few associations have maintained an attitude of studied hostility to labor, and a few have established training schools for future employes of their members.

Foreign trade bureaus of the associations maintain files of credit reports on foreign buyers, and advise their members on foreign patents, trade-mark laws, tariff schedules, marking regulations, etc. A number of associations have taken advantage of the terms of the Webb-Pomerene Act of 1918, permitting them to deal with foreign purchasers as a unit, thus maintaining prices in foreign markets by preventing foreign buyers from playing one exporter off against another.

Since the war there has been a rapid expansion of trade association activity in the field of government relations. The effort of trade association representatives in this field has not been confined to legislative work or "lobbying" in the national or state legislatures, but has extended to representation and the presentation of argument before all bureaus, boards, and commissions whose rulings or regulations may touch in any way upon industrial activity.

Most of the larger trade associations maintain permanent representatives in Washington. The "Monday Lunch Club," an organization of these association representatives, has an active membership of about sixty men, whose time is devoted principally to representing their industries before governmental agencies, and interviewing government officials and legislators. When a tariff revenue bill is under consideration these men are particularly active, and their ranks are swelled by trade association representatives from other cities.

During the last decade trade associations have vigorously promoted cost accounting. Many of them have devised special cost systems, have brought their membership to recognize the value of these systems and have supervised the installation of such systems in individual plants and

factories. The value of accurate cost accounting systems is now generally recognized. Comparison of costs, determined by a uniform method, among the various units of an industry through trade associations has been found of great benefit in promoting the introduction and use of more efficient methods. The use of cost comparisons, however, may be readily diverted to purposes of illegal price fixing.

The collection and distribution of business statistics has been the principal activity during the last decade of many American trade associations. The statistics gathered have generally related to production, orders, shipments, prices, wages and stocks on hand. In the usual case the desired information has been collected from members through questionnaires, arranged and tabulated in the central office of the association, and distributed back to members in the form of statistical reports.

Replies to a questionnaire sent out by the Federal Trade Commission in 1921 disclosed that 517 associations were engaged in the collection of price information, whereas 758 were not. The organizations that had no statistical activities, however, were mostly local or regional associations. Statistical activities are carried on by practically all of the larger associations.

The value of such statistics to the manufacturer or distributor is obvious. The trade association member, conducting his business on a competitive basis, is able to make sounder judgments and to pursue more intelligent policies when the information that comes to him from his own transactions is supplemented by statistical facts giving a broad view of current conditions. By comparing the condition of his own business with that of the entire industry, the individual producer is able to avoid many mistakes which might spell disaster for his own business, or depression for the industry as a whole, if the same mistakes were made in other quarters. Complete and accurate business statistics, irrespective of agreements to fix prices or limit production, undoubtedly tend to curb violent market fluctuations and to bring about a measure of stabilization that could not otherwise be attained.

The gathering and dissemination of business statistics—particularly price statistics—appears to have been inspired by the open price or open competition plan devised by the late A. J. Eddy, a Chicago attorney, in 1912. Mr. Eddy himself organized five open price associations in the textile trades, and his plan was widely copied by powerful trade associations in other industries. Eddy argued against the “old-fashioned cut-throat competition” and urged as a substitute his plan of “coöperative competition,” which would enable business men to conduct their operations in the full light of complete and accurate information, instead of in the dark.

As the business units engaging in modern types of competition increase in size and scope of operations, the competing units tend to become almost national in breadth. Competition then becomes interna-

tional, and the arena of competition nothing less than the sum of the inhabited parts of the globe. This competition may be divided into two classes,—a struggle for raw materials and a struggle for markets. One of the best examples of international rivalry over the source of strategic raw materials is furnished by the oil industry. An article dealing with this rivalry is quoted here. It describes the competition between an American oil company and a British oil company in Mexico for control of the rich oil deposits of that country. The author of the article is a Frenchman, who, by virtue of his geographical detachment, might be assumed to be reasonably impartial. Whether he is or not is a question requiring more detailed analysis than is possible here.

THE STRUGGLE FOR MEXICAN OIL⁷

by P. L. de la Tramerye

THERE is no country in the world where the struggle for oil between England and the United States has been as violent as in Mexico. The fact that the latter country has been for many years in a state of perpetual turmoil can be traced largely to the struggle over oil concessions.

The Standard Oil Company enjoyed a virtual monopoly in Mexico up to the time when the Tampico deposits were discovered. It was the only firm which sold petroleum in Mexico. The Standard even imported crude oil, refined it on the premises and sold it at a profit of six hundred per cent. When the deposits were discovered, President Diaz, in order to put an end to this monopoly, granted important concessions to the Pearson Company, a British firm which a little later formed the Mexican Eagle Company. These concessions gave the signal for a press campaign against Diaz in the United States and for a revolution in Mexico. The Rockefeller and Pearson interests clashed, with Mexican bandits as instruments of the struggle. The United States supported Madero, the revolutionary chieftain, while England upheld Diaz.

It was asserted that the Standard Oil Company aided the Maderists by subsidies. Lane Wilson, former American ambassador to Mexico, substantially declared in public on January 7, 1913, that the movement in favor of Madero was financed by the Standard Oil Company, and that a document in the archives of the Secretary of State at Washington proved it. Furthermore, Manuel Liyo, a high official in the Mexican cabinet, attested before a committee of the United States Senate, that the Madero brothers had made the following pact with the Standard Oil Company: (1) If Madero becomes president, he will grant all available concessions to the Standard Oil Company. (2) He will withdraw all those previously granted to the Pearson Company.

When Madero was elected president, the quotation of Standard Oil stock in Wall Street jumped 50 per cent. But this triumph was short-

⁷ Adapted and translated from "The World Struggle for Oil," an article in *La Vie des Peuples*, May 10, 1922.

lived. People often wonder at the attitude of the United States, upholding the weak presidents of Mexico and opposing the ones who really govern. In 1913 the *Daily Graphic* and the *Vossische Zeitung* uncovered the key to this mystery. After the Pearson Company was established in Mexico, the Standard Oil Company spent money freely to drive the British from Mexico. It wished to be sole mistress of those immense deposits which are among the richest in the world. About 54,000,000 acres are exploited there today, and Mexico already ranks second in the world's production of oil.

In order to halt the progress of the Pearson Company, the Standard Oil Cabinet, in May 1913, sent an envoy to ask the Mexican cabinet for a monopoly of oil exploitation. In exchange the Standard offered a loan of 200 million piastres. The Rockefeller representative promised, furthermore, that "the revolution will disappear as if by magic, but if the offer is refused, it will continue until General Huerta makes way for a president who will be more amenable to American demands."

Like his predecessor Diaz, General Huerta refused to make Mexico the vassal of the great trust, and the insurrection continued with renewed vigor.

Tired of these continual struggles ravaging their country for the profit of the two great Anglo-Saxon nations, the Mexicans resolved to use the European war as an opportunity to free themselves. The Mexican laws (of 1884, 1892, 1910) had provided that the owner of land surface was also the owner of the subsoil. The Constitution of 1917 changed this. "The subsoil belongs to the Nation," it declared. In order to exploit a petroleum deposit, it became necessary to get an authorization from the Mexican government. This authorization was only accorded to Mexicans or to foreigners who would submit to the laws of the nation and renounce their special privileges as foreigners.

As soon as the new law became known, the English press and the American press attacked the unfortunate President Carranza, who soon lost his power and was forced to make way for General Obregon.

As far as the United States was concerned, Wilson had always held to a policy of non-intervention in Mexico,—a policy which was severely criticized within the United States. But when Harding acceded to power, the government policy toward Mexico changed. President Harding had among his cabinet members Mr. Fall of New Mexico, who was interested in the oil situation. Fall demanded that American citizens should not be expelled from Mexico by a simple order from the President of the Republic, and that a commission be established to fix the damages suffered by Americans during the Mexican revolution—a demand the fulfilment of which would be contrary to the Mexican Constitution. Also it was recommended to the United States Senate that the American government should not recognize the new Mexican government unless the article of the 1917 Constitution, depriving foreigners of mining rights, be made non-applicable to American citizens.

The "Mexican Eagle" (The British oil company formed by the Pear-

son interests) fared well under the new Mexican laws. Pearson, from the very beginning, had been clever enough to place the company under the wing of Mexican nationality. His operations continued without interruption, while the American oil interests were forced to stop operations while waiting for authorization from the government.

The struggle between the Pearson group and the Standard Oil Company became at one time so keen that certain American oil operators were forced to pay large sums as tribute to bandits and insurrectionists. In one case a bandit in the Tampico district received a monthly fee of \$1,500 for refraining from cutting the company's pipe-lines.

The Mexican Eagle Company appears to be victorious; it owns an immense domain of two and a half million acres, stretching through the richest portions of the state of Vera Cruz and the isthmus of Tehuantepec.

The war which Pearson waged against the Standard Oil was not in vain.

. . .

Besides international competition for the control of basic raw materials, commercial rivalry between nations takes the form of a struggle for markets,—or a competition between sellers. The various national governments frequently back up their own business men, as is illustrated in the selections which follow. They are taken from booklets issued by the U. S. Department of Commerce, containing trade information gathered by the department for the guidance of our business men who are competing with business men of other nations. It will be noticed that the government's "tips" on the road to success for American business men in selling their products abroad go much beyond the fundamentals of high quality and low price. Is this a departure from the competitive ideal?

PATENT MEDICINE COMPETITION IN CHINA ⁸

THERE is a good market in China for pharmaceutical preparations, drugs, and medicines. The Chinese are prone to use patent medicines, buying according to trade-mark rather than judging the medicines by their healing qualities. This calls for a considerable advertising outlay for the introduction of a new remedy. Many well-known American patent medicines, however, are sold extensively in the large cities. Great Britain and Japan are our chief competitors, Japanese patent medicines being very widely distributed throughout China. However, the United States stands third in order of importance, receiving about 10 per cent of the total trade in pharmaceutical products.

In British India patent and proprietary medicines are in wide demand. The Indian is fond of patent medicines, and the stronger the claims and apparent action of the product, the more it is appreciated. This coun-

⁸ Adapted from *Markets for American Pharmaceutical Preparations*, U. S. Department of Commerce Trade Information Bulletin No. 149, 1923.

try is a promising field for these commodities. The poorer classes use local remedies, while the better classes patronize imported preparations. A large trade is carried on through the bazaar dealers, but they are conservative and it is difficult to induce them to handle a new article.

The Philippines in 1922 were good customers, being the third largest in the Far East. The outlook for 1923 under the law recently passed is not bright, for under the provisions of this act sales of patent medicines and pharmaceutical products are restricted to local licensed pharmacists, who must certify as to the contents before the goods can be marketed. This law naturally hampers importers, jobbers, and distributors.

TIRE COMPETITION IN BELGIUM⁹

UNQUESTIONABLY American tires surpass in quality any European makes offered on the Belgian market. This margin of superiority is not, however, so great as is popularly supposed in America, and it is impossible for a careful observer to disregard the good qualities of the Michelin tire which is made in France. The Belgian motorist apparently sees little to choose between the Michelin and the American tires. The chauffeur, however—it must be remembered that the big majority of the Belgian cars are chauffeur-driven—is not so much interested in the quality as he is in the rebate which he is to receive from the dealers. Since these rebates are given with all purchases, the chauffeurs are not particularly attracted by tires whose long-wearing qualities make purchases too infrequent. The quality appeal wins trade only from those motorists who drive their own cars or who take the trouble to check the results received from tires purchased by their chauffeurs.

QUESTIONS

1. Does the existence of many diverse patterns of competition, as described in Mr. Cheney's article, promote or hinder the "protective" and "regulating" features of competition developed in Chapter VII?
2. What have "overhead costs" to do with the fierceness of competition? May they increase the fierceness of competition and at the same time reduce the number of competitors? How?
3. Why is the textile industry moving southward? Can you find one reason of paramount importance, or are all the reasons of about equal weight?
4. If competition were always on a plane of price or quality, would Mr. Dallas Gray have had the difficulties he did?
5. In what respects do trade associations represent instruments of com-

⁹ Adapted from *Market for Rubber Goods in Belgium*, United States Department of Commerce Trade Information Bulletin, No. 65, 1922.

petition? Would you say that some of the activities of trade associations have both competitive and coöperative aspects? Is the distinction of any practical service?

6. Why is the slogan "Save the Surface and You Save All" worth a million dollars a word?
7. The Mexican Eagle Oil Company and the Pearson interests mentioned in the reading on oil competition were at one time closely associated with the Royal Dutch Shell,—a huge combine which fought the Standard Oil Company in all parts of the world. During the war, the Standard and the Royal Dutch Shell ceased their competition and pulled together for the victory of the Allies. Why was this done in time of war and not in time of peace? What would be the advantages and disadvantages of such coöperation in peace time?
8. In what essential features do problems of international competition differ from those of internal or domestic competition?
9. The phrase "economic imperialism" has not been mentioned in this chapter. Does the phrase have any meaning for you in the light of the last group of readings? Formulate a working definition of it. What is its connection with competition?
10. Why, as you understand it, should the United States government be engaged in sending public officials to foreign lands in the rôle of promoters of the products produced by private enterprises in this country?
11. Do you think the "Monday Lunch Club" of the trade association representatives promotes competition? If so, what kind?
12. Restate the so-called law of supply and demand, as quoted in Chapter VIII, so that it will take account of the possible varieties of competition discussed in this chapter. When so stated, what is the significance of the law?

C H A P T E R X

THE TARIFF

THIS is the first of three chapters which will discuss cases in which the free play of competitive forces have given way to varying degrees of monopoly. In this chapter, primarily devoted to the tariff as a type of interference with free competition in international trade, there will be discussion of:

1. Inroads upon the free scope of competition by the tariff, private monopoly, and government-controlled monopoly.
2. The case for tariff protection.
3. The case against tariff protection.
4. The effects of the tariff on various groups of people. The difficulty of adjusting tariff problems by appeal to principles.
6. The making of the tariff.

BY THIS time it should be evident that the task of following the threads of competition through the complicated industrial and business structure of today is one which would have left our ancestors of only a generation ago weak and dazed. In place of the traditional horse-trading example of competition we see giant concerns of national scope pitted against each other, and nations fighting it out for markets and products in the farthest corners of the world.

Where in this maze of conflicting forces are to be found the supposedly dependable guarantees that all people engaged in trying to make a livelihood are getting the squarest of possible economic deals? Where are the assurances that prices are being adjusted to eliminate the inefficient and force all who would survive economically to toe the mark?

Answers to these questions would be difficult enough if it could be assumed that there is competition throughout our complicated economic structure. To add to the difficulty, there is the fact that competition is far from universal. Indeed, at times it disappears entirely, and monopoly—that condition which prevails where there is unified control of supply or demand—takes its place.

Between the extremes of sharp competition and absolute monopoly there is a varied and subtle range of situations too manifold to permit even a partial catalog. It is a far cry from the corner druggist who sings “you’re a jolly good fellow” with his neighboring druggists at the meeting of the local boosters’ club, thus softening his competitive urge,

to the great manufacturing concern which dominates markets for its products in all parts of the world. Each, however, is at a point along the road from a situation where unadulterated competition prevails, to one where there is complete monopoly.

Along this road from competition to complete monopoly there are, however, situations which divide themselves into moderately clear-cut patterns. One is that where the government seeks to prevent foreign producers from entering into competition with domestic producers by the imposition of import duties or tariffs. Another is that of private industrial monopoly where, without aid or sanction from the government, business interests come to command the demand for or supply of some commodity or service. A third is that of government-controlled monopoly where the government sanctions unified control of the supply of an important product or service in order to attain the economies of unified production without the abuses of private monopoly.

These three situations, as is the case with all economic situations, are by no means unrelated. There are many who argue that the protective tariff is the greatest single aid in the formation of private monopolies, and private monopolies are constantly shifting into the field of those regulated by the government. In the following chapters, however, the problems raised will be treated separately under the heading of the tariff, private monopoly, and government-controlled monopoly.

The first problem to be discussed, that of the tariff, is, at least in part, an outgrowth of ideas stressed earlier in this volume. A newly created republic which had previously been largely an agricultural outpost of a great industrial nation—England—desired a greater degree of economic independence. This meant the establishment of manufacturing enterprises. Such infant industries could not hope to compete with those in existence without some discrimination in their favor. The easiest form of discrimination, which fitted admirably into the financial needs of the new government, was to tax imports. That is roughly the origin of the protective tariff system, since become a political football and a storm center of economic controversy.

While the protective tariff system has been promoted by the government, there has been a more or less abiding governmental policy to oppose the more obvious forms of private monopoly. The reason for such an avowed hostility to private monopoly is simple. Our whole economic system is bottomed on the principle that free private enterprise, held in check by the protective and regulative force of competition, will insure fair prices and a square deal all around. If competition is removed from the plan the whole structure crumbles, and control passes into the hands of monopolists. "Private monopoly is contrary to the genius of free government," is the way that one

student of political economy—Woodrow Wilson—has stated the proposition.

Of course, there have been people logical enough to criticise the policy of promoting a form of monopoly through tariffs on the one hand while trying to eliminate private monopolies on the other. Such arguments have never had permanent effectiveness. One reason probably is that logic and politics—the tariff is handled largely as a political question—never mix very well. Another is that the tariff is ostensibly directed against foreigners, while private monopoly in this country seems to be directed principally against American consumers and voters.

In all of the cases outlined—those involving tariffs, private monopoly, and government-controlled monopoly—prices are adjusted differently than they would be if competition prevailed. Each of the cases presents its own particular problems, but in following the discussion the student should keep in mind the questions, “What light does this throw on the problem of price adjustment? Does it mean that one can find the answer to this problem by the use of a formula? Or does it mean that one must follow the elusive factors bearing on prices into the halls of Congress, into the directors’ meetings of great corporations, and into the courts? Does it suggest that prices are fixed by some irresistible economic law, or does it appear that the law is adapted by men to meet some practical contingency?”

When the subject of the tariff is introduced, one is immediately confronted by a baffling maze of controversy, having its roots deep in the history of the political party system of this country and its flower in gaudy speeches in the halls of Congress. Almost anything that an old-fashioned Southern Democrat cares to say in denunciation of the protective tariff can be promptly matched by an equally flamboyant eulogy by a dyed-in-the-wool New England Republican. To one the tariff appears, at least for speech-making purposes, as the ultimate in political iniquity; to the other it seems the finest flower of nobly enlightened statesmanship. Between these extremes where does the truth lie? The material in this chapter will not begin to answer that question. It will simply present, in somewhat measured terms, some of the arguments which are advanced for and against the tariff, leaving to the student the more difficult task of seeing whether he can pick his way through the thickets of conflicting contentions to a path which may ultimately lead toward an understanding of the workings of the tariff.

The tariff, it should be noted, is simply one of a large number of governmental devices employed to influence the course of foreign trade. In the United States, where the levying of export duties is

SOME TARIFF DUTIES ¹

Classification	Act of 1909	Act of 1913	Act of 1922
Fountain pens, fountain pen holders, stylographic pens, and parts thereof	30%	25%	72 cents per dozen and 40%
Dental instruments, and parts thereof, composed wholly or in part of iron, steel, copper, brass, nickel, aluminum, or other metal, finished or unfinished	$\begin{cases} 20\% \\ 50\% \end{cases}$	45%	35%
Automobiles	$\begin{cases} 30\% \\ 45\% \\ 15\% \end{cases}$	45%	25%*
House or cabinet furniture wholly or in chief value of wood, wholly or partly finished	15%	35%	33-1/3%
Sugars, tank bottoms, syrups of cane juice, melada, concentrated melada, concrete and concentrated molasses, testing by the polariscope not above 75 sugar degrees	71/100 cent per lb.	95/100 cent per lb.	1 24/100 cent per lb.
For each additional sugar degree shown by the polariscope test	26/1000 per lb. additional	35/1000 per lb. additional	46/1000 per lb. additional
Cigars, cigarettes, cheroots of all kinds	\$4.50 per lb. and 25%	\$4.50 per lb. and 25%	\$4.50 per lb. and 25%
Butter	2½ cents per lb.	6 cents per lb.	8 cents per lb.
Oleomargarine and other butter substitutes	2½ cents per lb.	6 cents per lb.	8 cents per lb.
Wheat	Free	25 cents per bu.	30 cents per bu. 42 cents per bu.**
Sheets, pillowcases, blankets, towels, polishing cloths, dust cloths, and mop cloths composed wholly or in chief value of cotton, not Jacquard figured or terry woven, nor made of pile fabrics, and not specifically provided for.	$\begin{cases} 25\% \\ 30\% \end{cases}$	45%	25%
Clothing and articles of wearing apparel of every description, not knit or crocheted, manufactured wholly or in part, composed wholly or in chief value of wool:			
Valued at not more than \$2 per pound	35%	44 cents per lb. and 60%	24 cents per lb. and 40%
Valued at more than \$2 but not more than \$4 per pound	35%	44 cents per lb. and 60%	30 cents per lb. and 45%
Valued at more than \$4 per pound	35%	44 cents per lb. and 60%	45 cents per lb. and 50%
Clothing and articles of wearing apparel of every description, not knit or crocheted, manufactured wholly or in part, composed wholly or in chief value of silk, and not specifically provided for.	50%	60%	60%

¹ Adapted from the "Comparison of Tariff Acts of 1909, 1913, and 1922" (revised to

Classification	Act of 1909	Act of 1913	Act of 1922
Tooth brushes and other toilet brushes	35%	40%	45%
Coffee	Free	Free	Free
Cotton and cotton waste	Free	Free	Free
Silk, raw, in skeins reeled from the cocoon or reeled, but not wound, doubled, twisted or advanced in manufacture in any way.	Free	Free	Free

* *Provided* that if any country, dependency, province, or other subdivision of government imposes a duty on any article specified in this paragraph, when imported from the United States, in excess of the duty herein provided, there shall be imposed on that article, when imported either directly or indirectly from such country, dependency, province or other subdivision of government, a duty equal to that imposed by such country, dependency, province or other subdivision of government on such article imported from the United States, but in no case shall such duty exceed 50 per cent (Act of 1922).

** Rates increased to 42 cents per bushel on wheat, by proclamation of the President dated March 7, 1924, effective 30 days thereafter, pursuant to the provisions of section 315 of the Tariff Act of 1922.

forbidden by the federal Constitution, it is, perhaps, the principal governmental control exercised over foreign commerce. Some of the other governmental activities which influence our foreign trade are the scrutinizing of foreign loans by the U. S. State Department; the hunting of foreign markets for American products by agents of the federal Bureau of Foreign and Domestic Commerce; and the establishment by the Department of Agriculture of quarantines against foreign plants carrying insect pests. Here the intention is not to discuss the extensive problem of governmental control of foreign commerce, but simply to outline one phase of that control, the tariff, as illustrative of a type of government restraint upon the full play of competitive forces.

In considering tariff arguments it should be borne in mind that there is no such thing as *the* tariff, or *the* protective tariff. Congressional tariff acts make provision for a vast array of different import duties, almost all of which have their distinctive provisions and their own peculiar effects on the course of trade in the commodities to which they apply. Samples of these duties are presented in the table above, which contains a few of the provisions of recent tariff acts.

The controversy over the tariff, waged in this country ever since the time the United States became an independent nation, has been primarily concerned with the question of free trade versus a protective system. The question presented is not one which can be stated in ab-

solutely clear-cut terms. Advocates of free trade generally admit that it is proper for the government to levy import duties as a source of revenue, but insist that these revenues should not be so high as to exclude foreign products from entering domestic markets in competition with those produced in this country. Advocates of a system of protective tariffs hold that it is sound public policy for the government to foster domestic industry by imposing import duties which balance handicaps which such industry would suffer if the trade between this and other countries were conducted on a basis of free competition. The question of when an import duty ceases to be "for revenue purposes" and becomes primarily a protective duty obviously does not permit of any general answer. If the lowest possible cost of producing a world-standard grade of linen cloth were fifty cents a yard in the United States as opposed to a maximum cost of thirty cents a yard in England, an import duty of three cents a yard would seem to be clearly designed as a source of revenue. And if the lowest possible cost of producing such cloth in England were thirty cents a yard and the maximum cost in the United States fifty cents a yard, an import duty of twenty-five cents a yard would seem to be exclusively intended to afford protection from English competition. As most duties actually operate, however, they include both protective and revenue-producing elements. Even those designed primarily for revenue generally have a certain amount of protective effect by discouraging some shipments of foreign goods which would be made if there were no duties at all. The free traders generally would tolerate the use of import duties for revenue purposes. Consequently, the debate between the protectionists and the free traders is not over the merits of absolute protection or absolute free trade. Rather it is over the question as to where the emphasis should be placed in levying import duties, upon protection or upon free trade. In the following articles arguments for and against the use of tariffs for protective purposes are presented. The first two expound the virtues of a protective tariff system; the third attacks the standard arguments advanced in favor of such a system; and the last selection in the group presents an analysis of the way in which various groups are affected by the present protective tariff system of the United States.

THE BLESSINGS OF TARIFF PROTECTION ²

by J. J. Davis (Secretary of Labor)

SO LONG as the spirit of war prevails in the world, and the danger of conquest exists, every nation should seek to be economically independent

² Adapted from an address, June 12, 1926, reprinted in the *American Economist*, June 18, 1926.

of every other. Of course this ideal, like all other ideals, is one that can never be entirely realized. There are products of the soil which can be produced only in tropical climates, or at least under conditions which are not found in America. We must import our coffee, tea and many other articles of commerce. But we should produce every article of commerce which it is possible for us to produce, and it is possible for us to manufacture every article that needs to be manufactured. We should make all our pottery. And it seems to me that by draining the Everglades of Florida, it would be possible for us to raise various semi-tropical products of the soil which we are now forced to import in large quantities. America at the time of the adoption of the Constitution was mainly an agricultural country, and such it would have remained, in spite of its magnificent resources in minerals and water power, had it not been for the policy of Protection.

Thanks very largely to the policy of Protection, the wages paid in the industrial plants of America are the highest in the world, and this is a fact of which we have every reason to be proud. We are equally proud of the fact that the wage of the employed in America has become a large factor in the life of trade, and that the success of business among us is largely conditioned by the amount of money that the workers have to spend.

But American high-priced labor must be protected from the inroads of foreign cheap-priced labor, no matter how many traditions the latter may possess. We do not want our labor to sink to the European level, and still less do we want it to sink to the Oriental level. We do not want to see the day when a worker in America receives no more than a worker in England, Germany and Czechoslovakia, to say nothing of Japan and China. Such a condition in America would be nothing less than a public calamity. There must be no industrial slavery or serfdom in a democracy such as ours. The American worker must enjoy all the advantages of civilization, or we shall eventually discover that there is no civilization for anybody to enjoy.

America was developed by the system of Protection, by the application of a policy that gave us a home market more than all the foreign markets of the world would be, because it is a market in which our workers are a vital factor in the ability to consume. Before the war, the great manufacturing countries of England, Germany and France were able to consume only seventy-five per cent of their products, while America, which manufactured a product worth \$5,000,000,000 more than all three, consumed ninety-five per cent of the whole. Our ability to do so was based wholly on the high wage paid to American workers, and the inability of the European countries was due to the low wage-scale that gave their workers an extremely limited purchasing power.

If it were necessary to sell a large percentage of our manufactured products to foreign countries, there might be some truth in the contention of the cheap labor advocates; but as long as ninety-five per cent

of our products are consumed at home, their point of view will remain a bristling fallacy.

I have said that we owe the prosperity of the country to the policy of Protection. There are persons who think they know better. Even these, however, cannot deny honestly that every lowering of the Tariff bars has been followed by panic and industrial depression. That happened every time the Democrats reduced the Tariffs enacted by the Whig Congress; it happened when a very slight reduction in the Tariff was made during the second administration of President Cleveland; and it happened after the drastic reduction of the Tariff by the Underwood law during the first administration of President Wilson. You can account for this fact of our economic history any way you like; but the fact itself is one that no anti-Protectionist has ever been able to dispute, and no well-informed man, even though he may call himself a Free-Trader or what not, ever tries to dispute it, though some have exerted their intellectual ingenuity to the utmost in an attempt to explain these panics and depressions in a way that would leave the theory of Free-Trade intact.

The policy of Protection has given the farmer a market where the buyers have a large purchasing power. Think of the great army of the unemployed in Europe, think of the immense number of jobless men in England who are receiving a dole from the State that they may keep body and soul together, and then ask yourselves how much wheat or corn, or any other article of commerce, these people are able to buy! Think what a blessing the home market has been and is to us! But whether we retain this policy of Protection that has made the greater number of our people prosperous, and has made the condition of the remainder far sounder economically than it would have been without Protection, or reject it, will depend in the future mainly on the attitude of the workers; for even as the workers have become, through the purchasing power of their wages, one of the most vital factors in the economic life of the Nation, so likewise have they become, through the sequence of events, mighty in the maintenance of industry. If they continue to stand for the policy that has made America the dominant power of the world and the paradise of labor, that policy will be retained. I advise them to do so. Let them proclaim Protection throughout all the land, unto all the inhabitants thereof.

THE PHILOSOPHY OF PROTECTION ³

by Joseph Grunzel

THE protective policy is a means of consolidating and unifying a country in an economic sense, and enabling it to ward off dangers from

³ Adapted from *Economic Protectionism*, Oxford University Press, pages 339-342.

without, and to develop in accordance with its own laws. If the free-trade ideal of the development of the international division of labor on the basis of varied natural productive conditions were correct, the protective policy would necessarily represent an obstacle to the growth of world-trade. If, on the contrary, the natural conditions of production are at the present time progressively less and less important, and artificial conditions more and more decisive; if cotton is not manufactured in the place where it grows, or iron ore in the place where it is mined, but rather in the place where the market for the products in question exists, then the economic protective policy, as belonging to these artificial conditions of production, must be regarded as a means of developing the productive power of a country. If the natural conditions of production were decisive, Italy would be forced to restrict itself to the cultivation of wine, tropical fruits, and the like, while, as a matter of fact, it has manifested a notable growth in prosperity only since the time when by the aid of foreign coal, cotton, wool, etc., it secured for itself large-scale manufacturing industries.

Judgments passed on economic protectionism have usually suffered from the erroneous conception that the policy is equivalent to exclusion from the world-economic sphere. In reality, it leads to a greater multiplication of world-economic relations, inasmuch as it enables and compels the individual economic domain to participate more energetically in such activity. Industrialization necessarily outgrows the domestic market, as a point will be reached beyond which the specialization of production and concentration of establishments cannot be carried further without extending the market to foreign fields. Besides, even under limitation of the domestic market, exportation will become indispensable when large productive establishments require to be continuously occupied and the risk of a decrease in consumption at home is to be avoided. In addition, an increase in the demand more rapid than the growth of population can be achieved by no other means than by refining the demand, which again strengthens the endeavor toward specialization. In the place of the international division of labor between agriculture and manufactures, assumed by classical economics, a division of labor within the sphere of manufacturing appears. If now the development of the productive capacity of a country leads to industrialization, and if industrialization increases the participation of the country in world-economic dealings, it follows that the protective policy, as an important aid to industrialization, must under proper manipulation lead to an extension of world-economic relations.

The foreign-trade statistics of the most important nations pursuing a protective policy show that when first introduced it may indeed reduce importation momentarily, but that an increase all the more rapid subsequently results if other influences do not intervene to produce a disturbing effect.

TARIFF ARGUMENTS EXAMINED⁴

by Willard E. Atkins

LET us examine some of the arguments which from time to time are brought forward to justify placing tariff barriers before the operation of free exchange between countries.

One of the arguments frequently heard is that it is a bad policy for the United States to import any commodity that can be produced in the United States. This argument, however, does not make allowances for the nature of foreign trade. The principle which controls foreign trade is that each country produces for export those things which it can produce cheaply and imports those things which it cannot. One country may have an advantage over other countries in the production of certain commodities and because of this advantage be able to produce more cheaply. If the United States undertook to isolate itself from other countries and not engage in trade with them, it would be able, probably, to produce enough necessary products to exist, but many products would be produced at costly effort. To use an extreme but clarifying illustration, we might produce seal-skin coats from seals raised in enclosed water spaces cooled by blocks of artificial ice. But in producing seal skins, time and labor would be expended which could be more profitably expended on the production of pigs and automobiles. When the production of some good is carried on in one country at a greater cost than it could be purchased and transported from another country, a loss results. It would be much more advantageous to all if all produced in each country those commodities which each is peculiarly fitted to produce and exchange.

"But," someone says, "if we can produce a commodity in the United States with the same amount of labor that it can be produced in the foreign country, surely such a commodity cannot be economically imported." This labor-cost argument overlooks, first, the fact that labor is but one of the costs of producing an article. Second, even though the United States could produce many commodities with the same amount of labor that is needed for their production in other countries, it might not be wise to produce such commodities. Just as it is not profitable for the able lawyer to spend time doing stenographic work, so it might not pay the United States to produce many products, even though the amount of labor expended would be no more than that expended in other countries, because our time and effort may be more valuable if expended on other commodities. As a general proposition each country should manufacture the product in which it has a comparative advantage, and through exchange secure such other products as it needs.

"Maybe so," someone else remarks, "but surely when we buy goods abroad we get the goods and the foreigner gets the money. When we buy goods at home we get the goods as before and the money stays in the

⁴ Adapted from an unpublished manuscript.

country. Is not this a valid reason for not importing foreign products?" This argument implies (1) that each time exchange occurs there is an exchange of gold. But it can be shown that international trade usually is not an exchange of goods for money, or even goods for goods; rather international trade creates claims against obligations, credits against debits. In the long run these credits and debits tend to equal each other. The question implies (2) that acquiring money constitutes the goal of a country's ambitions. Money, however, is simply a mechanism of exchange. In itself it has utility to few. Increasing the quantity of money in a country does not increase the amount of want-satisfying goods and services, except in so far as gold itself serves as a commodity. An importation of a billion dollars in gold would not mean that our country possessed more and better houses, more food, or a higher standard of living.

The infant-industry argument for protection has a special form and a general form. The argument for the temporary protection of special industries is based on the idea that aid should be extended to industries which are unable to face foreign competition for the time being. It is believed that in these industries, under the encouragement of a protective tariff, investors may be induced to start new establishments, although without tariff protection they would not venture on such a step. After the infant industry has become firmly established, the tariff, by assumption, may be safely withdrawn without detriment to the industry.

People who advance the general form of the infant-industry argument for protection claim that as countries pass from one stage of industrial development to another they need protection. It is stated that in the transition from an agricultural to an industrial country protection is especially necessary. The argument is economically sound within certain limits when it is applied to a new country which is in the process of transition from an extractive to an industrial stage. Certain new industries may need the steadying and helping hand of protection. It can hardly be said that this principle should apply to the United States to any great extent at the present time. This country has developed, in the main, beyond the need for such protection. The natural resources have already been opened and exploited.

When war arises, countries are often cut off from parts of the world and thrown back more upon their own resources. The problem of getting supplies for the successful prosecution of the contest is likely to be a serious one, depending upon the degree to which a country lacks self-sufficiency. England has tried to meet this problem by adopting a naval policy designed to assure her of access to the seas regardless of war. Another method of achieving the same end is to develop the essential war industries within the country by protection. Either policy is costly, but to the degree that tariffs are based upon this argument of military defense they can possess some validity.

Whenever tariff agitation gets under way the pauper laborer and the full dinner-pail arguments are brought forth in one form or another

to secure votes for the political party committed to protection. The pauper labor argument runs as follows: To insure employment to American workingmen, is it not necessary to protect them from competition with the low-paid workers of Europe, Africa, and Asia? The coolie of China and the hard-driven Italian worker have pointed to the obvious moral: "If you let goods come in from these low-pay countries you will pauperize American workers! You will make it impossible for American workers to find employment."

The argument overlooks the basic fact that despite the low wages paid in certain parts of the world and the higher wages paid in the United States, the cost of production of many commodities in the United States is below that of other countries. Our natural resources, the temper of our people, and our economic organization fit us to produce certain things economically—so economically that the ten-cent labor of the Orient or the low-paid Italian labor represents no threat.

The full dinner-pail argument was launched in its most picturesque form during the McKinley-Bryan campaign of 1896. This argument simply seeks to impress upon the worker that if the United States has a high protective tariff, if it keeps out foreign goods, the process will usher in prosperity. With prosperity will come work opportunities and good wages with which to fill the dinner-pail. This argument sounds plausible to many people. On the other hand, if protection actually keeps goods out that would otherwise come in, it tends to raise prices in the domestic market. It is possible, of course, to raise prices and make it profitable for American employers to put labor into uneconomical lines of production, but with two costs: (1) the worker as a consumer finds that his cost of living increases and his wage does not go as far as it otherwise would; and (2) the varied industries fostered by protection leave just so much less labor and capital for the development of fields of production to which we as a people are fitted.

It is difficult to see how the worker, or business as a whole, can hope to prosper by a policy which encourages dispersion of effort, and discourages specialization on the basis of fitness. Moreover, to the extent to which we forbid imports, we limit the ability of other countries to buy from us. Thus, workers in industries which would otherwise export, face the possibility of unemployment and lower wages than they would if trade were not restricted. In addition, policies of exclusion tend to excite counter tactics, and the exclusion of French perfume from America, for example, may mean the exclusion of American automobiles from France. If we shunt workers out of the automobile industry into the perfume industry it is a doubtful gain.

The full dinner-pail argument is to be explained as a fallacy which persists because it sounds plausible and is involved enough to prevent its imperfections from being unearthed. It is quite natural that when a given business seeks protection to increase the price in the domestic market, it promotes the type of argument that possesses a popular appeal.

WHO IS HELPED AND WHO IS HURT BY THE TARIFF? ⁵

by Benjamin M. Anderson, Jr.

A PROTECTIVE tariff is effective only to the extent that it reduces supplies in the domestic market. Commodities which we produce in excess of our domestic requirements, as wheat and cotton, cannot be raised in price by the tariff. Of course, special grades of wheat or even special grades of cotton might be raised in price, in accordance with this principle, if the domestic production of these particular grades is inadequate for domestic consumption and some foreign cotton or wheat of these grades must be imported. A protective tariff can build up an industry which would not otherwise be developed in a country because the country's aptitudes in other lines are greater. It does this, however, only at the expense of other industries, by drawing labor and supplies away from them or by imposing burdens on them. A tariff on a commodity which is used as a raw material or a semi-finished material in some other industry is injurious to the other industry quite as much as it is beneficial to the first industry. The one is pulled down as the other is built up. There is no magic in the protective tariff. An Act of Congress cannot create wealth.

Certain of our industries are clearly dependent on the tariff if they are to continue to exist on their present scale in the United States. They have higher costs as compared with the same industries in other countries. This is true, of course, when we try to compete with the tropics in producing goods for which they have great natural advantages. It is particularly true of industries which employ a great deal of labor in comparison with the amount of machinery and capital used. It is particularly true of specialties where only a few units can be produced from a given model. In the United States we have a relative abundance of land, a relative abundance of capital, and a relative scarcity of labor. We succeed best in those industries where land and capital can be employed lavishly and labor economized, that is to say, in mass production where a multitude of identical articles can be produced from a single model. We cannot compete with Europe in making bicycles to individual order. We must turn out standardized bicycles. We cannot compete with Switzerland in making watches of unique pattern. We must turn out large numbers of watches of a standardized pattern.

The great reason why labor costs are high for such industries in the United States is that labor can be so advantageously employed in other industries in the United States. There is no mystery about the high wage scales in America. These high wage scales are not begotten by the tariff, nor are they dependent upon the tariff. They grow out of the high efficiency of labor *per individual*. This high efficiency is due (a)

⁵ Adapted from "A World Afraid of Production," *The Chase Economic Bulletin*, August 24, 1925.

to the widespread education and good native qualities of the labor and (b) to the comparative abundance of land and capital with which our labor may work. In Europe labor is relatively abundant and land and capital are relatively scarce. Europe can produce specialized articles at lower costs than we can, and, in general, Europe can produce more cheaply those commodities which call for a relatively large amount of labor and a relatively small amount of land and capital. The most formidable competitors, however, of our industries dependent upon the tariff are not the Europeans who offer cheaper goods, but rather other industries in America which offer and can well afford to pay higher wages. This class of industries dependent upon the tariff is important, but is a small minority of American industries. The removal of tariffs would not destroy these industries as a rule. It would, however, drive out of them the least efficient producers, and it would in many cases compel them to give up many of their most specialized products involving the most lavish use of labor.

The rest of our industries are injured by the tariff in one or both of two ways, (1) because their costs are raised to the extent that they have to make use in the processes of production of commodities which are higher priced because of the tariffs on them or on their component parts and (2) because in many cases the rest of our industries are dependent in a greater or less degree upon foreign markets, and their foreign markets are injured by the reduced ability of their foreign customers to sell goods in the United States and get dollars with which to buy goods they wish to export. A typical case where both these factors apply is agriculture. Our farmers, by and large, are injured by the tariff both through having their costs raised and through having their foreign markets reduced. Copper production stands on the same footing. Various other raw-material interests are in the same position.

A large body of our export manufacturing interests are in this same position. The Ford automobile company gains nothing from tariff protection. No country outside the United States can produce cars competitive with the Ford cars at the same low cost. The cheapness of the Ford car comes not from low wages, but from such an economy in the use of labor that the labor element in cost is relatively small. The same is true of others of the cheaper automobiles. It is true of much of our farm machinery. The typical case here is where mass production has been highly developed and where the domestic market is very big.

Another large body of occupations injured by the tariff, and in no way benefited by the tariff, consists of those which have almost exclusively a domestic market which is not subject to foreign competition. These are hurt as producers by the tariffs by having their cost raised, but are not helped as producers by any increase in their prices growing out of the tariff. A very large, highly important and very miscellaneous group of occupations belongs in this class.

Some of the more important of these include: the railroads; the build-

ing trades; wholesalers, retailers, and other distributors; public utilities, such as light, power, and telephone; newspapers; hotels; public employees, including the Army and Navy; all educational institutions; hospitals; professional men generally.

All of these interests are hurt by protective tariffs on other industries in that their costs of production are raised. All would be benefited by having the general tariff fabric lowered. Any injury that might come to the business fabric through reduction in tariffs injuring the minority of our industries referred to above, would be more than offset by the increased profits of all these industries as their costs were lowered.

Finally, everybody is hurt by the tariff as a consumer. Everybody in the United States pays more for many commodities than it would be necessary to pay if there were not tariffs on these commodities. This extra payment by the consumers constitutes the price which the country pays for maintaining in present volume certain industries for which the country is not so well adapted comparatively as it is for other industries. It constitutes the subsidy which the country supplies to certain industries to enable them to bid away labor and capital from other industries which could use the labor and capital better if there were no tariffs.

In the course of the arguments just presented, some thought has been given to the bearing of the tariff on the welfare of various sections of the population, with particular reference to the wage earners as a group. Very little, however, has been said about the tariff and the farmer. In view of the fact that a large part of the tariff controversy—particularly during the last few years—has ranged about its effects upon the farmer, two statements on this subject are presented. The first—true to form in tariff arguments—suggests that one of the blessings of our farmers is the protective tariff. The second takes a diametrically opposite point of view, its contention being that the protective tariff, as at present managed by the Republicans, involves vicious exploitation of the farmers.

THE TARIFF PROTECTS THE FARMER ⁶

by Congressman William R. Green

I AM quite well aware and ready to admit that as long as there is a surplus of any agricultural product which must be sold abroad it is difficult, and sometimes impossible, to make the tariff work to the full effect desired. What I propose to show is that the tariff on manufactured products is for the benefit of the farmer as much as for the manufacturer and the workers in the factories.

⁶ Adapted from *The Congressional Record*, July 12, 1926.

Now, what is it that troubles the farmer to-day? You say a surplus of farm products that cannot be disposed of without depressing the price of his products. True! But we should analyze this a little further. Why is there a surplus? The sole and only reason is the lack of a sufficient market and demand. And what is the Democratic remedy? To destroy the best market that the farmer has, by bringing on the same conditions that we had under former Democratic tariff bills. Does any farmer think that workingmen who, instead of drawing good wages, make up part of the bread line or carry a soup bucket to be filled, are going to buy beef, pork, mutton, butter, chickens, and eggs to any considerable extent? I think not. I think the farmer realizes that idle men create no markets; they destroy markets. What the American farmer needs is not only a tariff to keep out imports from our country but a tariff that will build up a market for him at home. Our experience shows that a protective tariff has been doing this.

There is a great deal of talk about what the farmer has to pay under the present tariff. The truth is that very little of what the farmer buys has a tariff on it, while everything he sells is protected. As a matter of fact, all of the farmer's large items of expense are on articles that are absolutely free of duty. There is no duty on lumber; no duty on brick; no duty on cement; no duty on materials for fertilizers; no duty on binding twine; no duty on barbed wire; no duty on farm implements; no duty on cream separators unless valued at more than \$50, which enables those in use on farms to come in free; no duty on gasoline, or the kerosene with which he usually lights his house. There is no duty on leather, boots and shoes, or farm harness. The principal thing on which he pays a duty is clothing.

Would the farmer like to go back to a condition under which there was no tariff on wool? Some might say "yes" to this last question, forgetting that in a suit of clothes there is only about $3\frac{1}{2}$ pounds of wool and that if he got the full benefit of the abolition of the tariff, which is 31 cents a pound, it would only make a difference of about \$1.18 in the cost of a suit, which would by no means compensate for the harm done business and the general market for the farm products. Does he want cattle and beef to come in free? Of course he does not.

The crying need of the farmer is for markets, ever-widening and expanding markets. Will the farmer listen to the voice of those who tell him that we must lower the tariff in order that Europe will buy more agricultural products from us? Is it not perfectly plain that Europe will continue to buy where it can buy cheapest, from Canada, Australia, Argentina, and other countries where the cost of production is less than it is here? Will they listen to those who tell them that the tariff on manufactures should be reduced in order that they may buy a few articles cheaper, when such a course would create unemployment all over the land and cause their loss of the home market, the greatest market in the world, which is all their own?

In days of old, Jacob said to Esau, "Sell me now thy birth-right," and he sold it to him for a mess of pottage, for he was hungry. The home market is the birthright of the American farmers. Will they sell it for a mess of pottage, for a hope of reduction in the price of manufactured articles? If they do, they must be prepared to meet the same consequences that have always followed the enactment of a Democratic tariff.

THE TARIFF EXPLOITS THE FARMER ⁷

by Cordell Hull

THE existing tariffs hurt the American farmer by (1) increasing his production costs, (2) his cost of living, (3) his transportation rates on both land and sea, (4) decreasing his foreign markets and his exports, and (5) decreasing his property value by surplus congestion. The tariff is a tremendous factor in the farmer's production costs, as it is in his living costs. There is scarcely an article he can purchase for any purpose at a price that is not tariff-inflated. His agricultural machinery was placed on the free list, while high duties were imposed on all the materials entering into the same, and the fact that the manufacturer dominates the world compels the farmer to pay high-tariff prices just the same.

Agriculture continues as the basis of all sound domestic prosperity. Under existing tariff and trade policies industry will soon submerge agriculture and then the rule will be reversed. The farmer undoubtedly knows now just what has been happening to him during the past five years. In 1920 the exports of all foodstuffs and food animals were \$2,034,000,000, compared with similar exports of \$892,000,000 in 1925. Only 17 per cent of our imports of foodstuffs in 1925 were competitive. Attempts are at times made to mislead the farmer by pointing to the large volume of agricultural importations. They dodge the controlling facts that most importations of foodstuffs are tropical fruits, coffee, sugar, tea, and other products that we do not produce at all, or if so, in insufficient quantities. Tea, coffee, sugar, spices, and cacao comprise \$620,000,000 of food imports for 1925. We produce none of these except some sugar. We must import wool and Egyptian cotton to the extent of \$162,000,000 unless we are to freeze; raw silks amounted to \$396,000,000 and crude rubber to \$437,000,000. We produce neither. A fair volume of winter fruits and vegetables come in from southern countries at a time not to compete with our own. We do not produce enough hides, and so we purchased \$96,000,000 of hides in 1925.

These are the principal scarecrow items of agricultural imports. There will naturally and inevitably filter into this country sporadic items of competitive imports, such as 12,635,000 pounds of fresh beef in 1924;

⁷ Adapted from a speech printed in the *Congressional Record*, April 14, 1926.

but since we eat more than 7,000,000,000 pounds of beef annually, this insignificant quantity would not afford rations for two meals. It is these small dribblets of imported foodstuffs which come in in the natural course of international trade, tariffs or no tariffs, on which protectionists base their plea to the farmer. I am not discussing here a few minor agricultural specialties in this country which now and then claim some tariff advantages, but which comprise scarcely more than 15 per cent of American agriculture. One class of wheat growers now and then gets a slight whiff of tariff benefits, in no sense comparable to his injuries or to the far broader benefits he would derive from moderate tariffs, with the result that he enlists in support of all high-tariff programs.

This is in the face of the fact that probably three-fourths of the time competitive wheat in Winnipeg is higher than in Minneapolis, with the result that the American grower gets virtually nothing except some advantage against price fluctuations across the border which occasionally occur. What generally happens is that American and Canadian wheat moves on parallel routes to the world market in Liverpool, where they meet in competition and where the price of our domestic wheat at home is measurably fixed.

It is thus seen that mountainous tariff rates which are utterly meaningless are scooped out to the farmer, while he in return supports such unconscionable rates on iron and steel products, wearing apparel, house furnishings, and others, which are wholly effective in increasing the prices of all articles and commodities the farmer must purchase. Under the existing tariff and related economic policies there is an irreconcilable conflict between industry and agriculture in this country.

In most of the tariff arguments which have been presented, the subject has been treated in the sweeping terms customary in the controversy over this subject. As Private Willis, in Gilbert and Sullivan's *Iolanthe*, notes

That every boy and every gal
That's born into the world alive
Is either a little Liberal
Or else a little Conservative,

so it seems that almost everyone who discusses the tariff is either an ardent free trader or an equally ardent protectionist, condemning or approving wholeheartedly the opposing systems. In the following statement a middle ground between the opposing contentions is taken, with the suggestion that in judging the merits of tariff controversies reference must be made to the specific facts involved as well as to broad principles.

PRINCIPLES VS. PARTICULARS IN TARIFF PROBLEMS

For almost a century and a half now the debate over free trade and protection has been raging in the halls of the Congress of the United States. Since the turn of the century it has raged less furiously than formerly because the South, formerly a free-trade stronghold, has been invaded by manufacturing interests steeped in the protective tariff faith; but the fire of the controversy is far from extinguished.

In this perennial debate the arguments in use today are little different from those in vogue a hundred years ago. The free traders stand firm in their insistence that the United States should face the world boldly and unafraid in the competitive markets of this and other continents (save in the case of products produced by the speaker's constituents). The protectionists repeat the same old phrases about "self-sufficiency" and "the American standard of living," and appeal to the eternal verities. It is this age-old conviction that tariff problems can be thrown together into one conglomerate mass and settled by reference to broad and sweeping principles that makes progress toward the solution of tariff problems so difficult.

A very plausible argument can be made in favor of free trade by appeal to the principle of division of labor. Nations, like individuals, will discover those activities at which they are most efficient if all the world is a free competitive area. As an abstract proposition that is reasonable enough, but it may be successfully attacked with another abstract argument in favor of protective tariffs. How, it may well be asked, is a nation to learn its industrial potentialities without experimenting, and how is a period for experimentation possible without some protection from competition with countries which are more highly developed industrially? The reasonableness of such a query finds support in the fact that certain manufactures in this country, to which a protective tariff gave a breathing spell from stifling British competition at the beginning of the nineteenth century, have developed potentialities which might have long remained undiscovered under a system of free trade.

The activity for which this country was preëminently fitted in its formative years was agriculture. Any world-wide division of labor would have assigned to the United States the job of doing a large share of the world's farming. Economical from a world point of view? Perhaps, but who, it may be asked, would want to live in a nation composed almost entirely of farmers? There are many, no doubt, who prefer less world economy and the more diversified national culture which has been hastened by protective tariffs. There is something of this spirit in the efforts of communities to build up more diversified local enterprises.

It is possible to engage almost indefinitely in amassing good arguments in favor of the principle of free trade, and equally good arguments in favor of the principle of protection. Principle, however, is only one part of a tariff act. Another part is an elaborate list of duties assessed and collected at ports of entry. And it is only by experimental study of the

effects of each of these duties, rather than broad pronouncement of principles, that tariff acts can be appraised.

Assuming that it is the will of Congress to give protection to an American industry, what scale of duties is required to offset the lower cost of production abroad? The foreign manufacturers, like those in this country, are many, and have varying costs of production. What cost of production is to be chosen? If the protected American industry thrives behind the tariff wall, its cost of production will presumably tend downward. If this should prove to be the case, import duties which once provided no more than the protection necessary to insure existence will become excessive unless revised. How is this constant process of revision to be carried on in order to prevent perversion of the principle of protection into license for the exploitation of consumers in the domestic market?

Certain industries in the United States which have no competitive peers in the world are still accorded the benefits of a protective tariff. The steel industry may be cited as an example. Some other industries are accorded high duties of virtually no significance. Since a surplus of wheat is produced in this country, very little would be imported under any circumstances. What effect, then, does a 42-per-cent duty on each bushel of wheat imported have on the price of wheat? Specific industries present problems which cannot be answered by broad appeals to the principles of free trade and protection. In the steel industry the protective tariff has outlived its protective usefulness, but is still retained. In the case of almost all industries affected by tariff legislation, it is necessary to go beneath broad generalizations to the specific industrial facts involved in order to understand the true relation of a given industry to its foreign competitors. And it is this relation, fully as much as the merit of any abstract argument, which determines the worthiness of tariff legislation in any specific instance.

Philosophers do not make or revise the tariff. The tariff always emerges from a clash of opposing interests, with the scene of the clash laid in the halls of the national Capitol at Washington. Accordingly, if one desires to have a fairly accurate picture of the tariff situation, he must go beyond the printed argument—pro and con—to get a glimpse of the actual making of the tariff. For this purpose, Thomas Walker Page, former Chairman of the Tariff Commission, takes us behind the scenes of Congress in the following article.

It seems, however, that even a supposedly straightforward matter like a description of the tariff-making process is subject to controversy. Following Mr. Page's discussion is another short description of how the tariff is made, written by a strong advocate of protection. A final word on tariff-making is found in a short piece from the trenchant pen

of Peter Finley Dunne, who speaks through the character of "Mr. Dooley."

HOW THE TARIFF IS MADE ⁸

by Thomas Walker Page

THE preparation of the bill begins in the Committee on Ways and Means, which is the most powerful committee of the House of Representatives. The composition of this committee has little relation to the nature of its work. Places on it are eagerly sought and have to be awarded with caution. Unfortunately, the members are not selected with a view to their special fitness for their duties, but, apparently, on the principle that in qualifications all members of the House are equal. The choice among them usually recognizes geographical and factional divisions in the House, but except for that restriction it is determined almost wholly by seniority of service. It is rare, therefore, that a member, when he first joins the committee, has the sort of knowledge and aptitude that the committee's work peculiarly requires. And as tariff revision has been seldom undertaken except as a result of a party change after an election, it has usually been made at the very time when the membership has the largest proportion of new men.

The organization as well as the composition of the committee is likewise controlled by seniority. The chairmanship is usually determined by length of service, and the division of work among the subcommittees goes more by seniority than by merit and industry. It can easily happen that the best men on the committee have little influence on its proceedings, and that the work is really dominated by the more prejudiced and politically minded members.

Once revision has been begun, members of the committee have little or no opportunity to make up any handicap in knowledge or experience. The information needed for fixing duties is sometimes available only in a form that the committee as composed cannot readily use, and sometimes it is not available at all. And even when it can be procured, other demands on the time of committee members distract their attention and divert their energies. When they venture to neglect the outside calls on their time, they do so at the risk of defeat in the next election. They can make insufficient use, therefore, of the materials relating to economic conditions that numerous agencies have already assembled.

No other government in the world has accumulated such a vast amount of trustworthy information about industry and commerce as the government of the United States, but to the average member of Congress its very volume and detail are appalling. Not many men either in or out of Congress are able to follow through an intricate investigation, interpret elaborate statistical tables, and draw sound independent conclusions from

⁸ Adapted from *Making the Tariff in the United States*, by permission of the McGraw-Hill Book Company, New York, 1924, pages 11-20.

them. Such work requires special aptitude, training, and long practice. To most members, therefore, a bulky government report remains metaphorically as well as literally a closed book. Usually, it is true, there are a few men on the committee who can do work of this kind, but owing to lack of time they have to limit their attention to a small part of the task. When it is remembered that the tariff covers the whole field of industry and commerce, embracing many thousands of items, each of which demands individual attention; and when it is further remembered that public opinion and business stability require that the revision be completed within a few months, it becomes clear how hopeless it is for a committee member to find out what he needs to know by the ordinary methods of systematic study.

The committee resorts, therefore, to public hearings as the quickest and simplest means of getting information. But in the great multitude of matters to be heard little time can be devoted to any of them.

The men who testify at the hearings are frequently warned to be brief in their remarks. Their whole purpose is to use the time allotted to them so as to make the best case they can for the interest they represent. They are not sworn and are not required to tell the whole truth, but may limit themselves to such part of it as sustains their case. They are, indeed, liable to be cross-examined by members of the committee, and admissions are sometimes drawn from them that throw light on the other side of the matter in hand. But the cross-examinations often degenerate into confused disputes filled with unsupported statements and expressions of suspicion, and frequently wander off into unimportant details. Many elaborate briefs are presented; and letters, affidavits, newspaper clippings, one-sided excerpts from official and unofficial reports, and all sorts of extraneous materials are admitted. The whole undigested mass is finally printed, and the committee is thus furnished with many volumes of confused and contradictory evidence in which significant facts are apt to be obscured by irrelevant matter and positive denial. The tariff hearings before the Committee on Ways and Means preparatory to the existing law filled more than four thousand printed pages. No better way could be found to strengthen prejudice and stimulate misinformation and intrigue. When trustworthy information is lacking, other influences are free to sway the opinion of those who frame the bill.

After the hearings are finished, the committee members of the majority party go for many weeks into executive session. Here an earnest effort is made, with the aid of clerks, statisticians, and selected advisers, to draft a bill that will honestly and reasonably carry out their party's policy. But that policy is given different interpretations by the different members, who have been intentionally chosen to represent different sections and different party groups. Lacking exact information, and free to choose from the mass of conflicting testimony, each of them naturally gives first place to the views of his own constituents. It is only by a series of concessions and bargains, therefore, that it becomes possible to report out any bill at all.

The bill is voted on by the House under ironclad rules after being framed in committee with a view to conciliating enough diverging opinions to insure its passage. Few amendments on the floor are tolerated. Debate is brief and most of it is perfunctory. In the main, the members have to accept on faith the views of their party representatives on the committee, for they have neither time nor means to form an independent judgment on so elaborate and technical a measure. Here and there on both sides a few recalcitrants break away from party lines, and there is no little grumbling and discontent even among the faithful. But in the end the bill is passed with negligible exceptions by a strict party vote.

Proceedings in the Senate duplicate in large measure those in the House. But in some respects conditions are different. So long as the bill is in the House Committee on Ways and Means, the public is ignorant of terms. But when that committee reports it to the House it is published, and the brief debate that follows, though it contributes little to the result, does direct attention to its salient features. By the time the bill reaches the Senate, therefore, every interest it affects is roused to more strenuous efforts, some to maintain what they have got, others to get more, and many to defeat provisions that they consider unfavorable. The press, now furnished with a distinct mark at which to direct its comments, devotes less space to generalities and more to the specific provisions of the bill. Public discussion is diverted from broad tariff policies and fastens on significant particulars. Numerous adjustments are demanded by opposing sections and interests.

Open hearings are conducted by the Committee on Finance of the Senate, to which the bill is referred, in much the same way as the Committee on Ways and Means of the House. They seldom develop many new and helpful facts, but as feeling has grown more bitter, the hearings are usually marked by greater arrogance among the claimants and resentment among the disappointed. Without exception, the country has always appeared to receive a House tariff bill with disapproval. Protests come from some quarter against so many of its details as to give the impression that its enactment into law could not fail to oust the majority party from power.

Accordingly, when the majority members of the Finance Committee of the Senate go into executive session it is with a clear understanding that for party safety they must make the bill more widely acceptable. To do so usually involves many hundreds of amendments and sometimes so radically changes the bill as to make it recognizable only through its title and number. In most of the recent tariffs these amendments have commonly been in the nature of an increase of duties, either directly by raising rates or indirectly by changing classifications. This is done because high duties tend more than do low duties to conciliate those opponents who are most active.

The work does not progress far before the position of practically every Senator is known, and the committee is made aware of the particular provisions in which each is interested. It then becomes its task to arrange

compromises in such a way as to secure a majority when it comes to a vote on the bill.

When the bill reaches the floor of the Senate it usually appears that agreement by majority of the committee does not mean that the bill will be accepted practically unchanged by the Senate, as is usually done, however disapprovingly, by the House. Debate is not cut short by the Senate rules; it is long and searching, and the committee must make more than a perfunctory defense of its proposals. Furthermore, sectional and factional influences are fully as strong and much more vocal in the Senate than in the House, and under the Senate rules insurgency is easier and more prevalent. In the main, the committee's recommendations are sustained, but amendments proposed on the floor by individual Senators are sometimes adopted that are quite inconsistent with the rest of the bill. In this way maladjustments and inequalities are apt to be further increased. On the other hand, the long debate occasionally shows up discrepancies in the committee's proposals that the Senate sees fit to smooth away. All in all, however, when the vote is taken in the Senate on the bill as a whole, it usually shows less of logical arrangement and systematic adherence to a common standard and a definite policy than at any previous stage.

From the Senate the bill goes to conference in a committee composed of an equal number of members designated by each House. Meetings are held behind closed doors and sometimes continue for several weeks. Numerous concessions are made by both sides. Many of them are of minor significance, but some of them give to whole paragraphs and schedules a form quite different from that in which they were passed by either House. New information is seldom sought or offered. In deciding the points at issue less attention is given to their relation to the declared principles of the bill than to the impression that the action taken will make on the respective Houses. Sometimes agreement is difficult and settlement is determined in large measure by endurance and bluff.

The bill reported back by the conference committee is almost invariably voted on as a whole, regardless of the changes made in it. Extremely seldom is it sent back to conference by either House for further adjustment; and although in its final form it is safe to say that no man in either House gives it unqualified approval, and that few even know just what it contains, yet it has never happened that a bill after getting through the stages described failed of passage by Congress.

THE VOICE OF THE PEOPLE IN TARIFF-MAKING⁹

by A. Cressy Morrison

I WANT to review the process by which a Tariff law is made so that you will see how impossible it is for any special privilege to exist in it.

⁹ Adapted from the *American Economist*, May 21, 1926.

A party is elected. It makes no difference whether it be Republican or Democratic.

When either of our political parties decides to revise the Tariff, the proposal first goes to the Ways and Means Committee of the House of Representatives, a well-balanced body composed of Democrats and Republicans. The Ways and Means Committee holds hearings which last in some cases for months. The theorist is permitted to exploit his theory and the crank is allowed to present his ideas; the business man appeals for a Tariff and the importer insists there should be lower duties or none. The members of the committee examine and cross-examine. In that way the facts are brought very clearly before the committee, both sides have an opportunity to state their case and any inequality or injustice is bound to be discovered.

After the hearings, lasting for many months, subcommittees are formed to take up different industries and study them specifically. Those subcommittees report to the original committee and finally the committee reports the bill. When that bill is reported to the floor of the House of Representatives it is open to debate and every Congressman has an opportunity to state his objections. After it has been debated for a period of time, if it passes the House it then goes to the Senate. The Senate Finance Committee holds hearings on the bill and there is a second chance for anyone to expose iniquity, and the utmost opportunity is given for both sides to make themselves clear and then and there to correct errors which have been discovered in the House. Those hearings go on for months and are vigorously and earnestly debated by all interested.

Finally, when the Senate Committee reports the bill, it is debated on the floor of the Senate. There all of the Senators who oppose the bill attack it. Where any industry is adversely affected or feels it is unjustly treated, the facts may again be debated on the floor of the Senate. The arguments are all made a matter of printed record and all previous Tariff debates which touch the subject are considered so that no points can be missed.

After that has gone on for weeks or months and the bill finally passes the Senate, it then must go to a conference committee of both the Senate and the House where the disputed points and differences are thoroughly discussed and ironed out. Finally, compromises are reached, the bill is brought back to both Houses, and when it again passes both the Senate and the House it goes to the President, and when he signs it, the bill becomes a Tariff Law.

I want to say no legislation is ever presented to the American people that has so clear an opportunity for fair and complete consideration, debate and discussion, and so full an opportunity for all interests to be heard as a Tariff bill. When a bill is finally passed it is more or less a series of compromises, but it is as clear an expression of the desires of the American people as can be legislatively enacted.

Therefore, when you hear people discussing a Tariff bill as though

it was all fixed up in a minute, and the impression is created that the great interests have written their dictum into that bill, you are in a position to refute it, because you know it cannot be done.

TARIFF FOR POLITICS ONLY ¹⁰

by Peter Finley Dunne

SAYS Th' Sinitor Fr'm Louisianny: "Louisianny, th' proudest jool in th' dyadin iv our fair land, remains thrue to the honored teachin's iv our leaders. Th' Protective tariff is an abomynation. It is crushing out th' lives iv our people. Wan of th' worst parts is th' tariff on lathes. Fellow sinitors, as long as one dhrop iv pathriotic blood surges through me heart, I will raise me voice against a tariff on lathes, onless," he says, "this dhread implyment of oppressyon is akelly used to protect th' bland and beautiful molasses iv th' State iv me birth," he says.

"I am heartily in sympathy with th' sinitor fr'm Louisianny," says th' Sinitor fr'm Virginya. "I loathe th' tariff. Fr'm me arliest days I was brought up to look on it with pizenous hathred. At many a conviction ye cud hear me whoopin' agin' it. But, if ther is such a lot iv this monsthrus iniquity passin' around, don't Virginya get none? Gintlemen, I do not ask, I demand rights f'r me commonwealth. I will talk here until July fourth, nineteen hundred and eighty-two, agin' th' proposed hellish tax on feather beds onless somethin' is done f'r th' tamarack bark iv old Virginya."

A Sinitor: "What's it used f'r?"

Th' Sinitor fr'm Virginya: "I do not quite know. It is ayther a cure f'r hives or enthers largely into th' mannyfacture iv carpet slippers. But there's a frind of mine who makes it an' he needs th' money."

"Th' argumints iv th' sinitor f'm Virginya are onanswerable," says Sinitor Aldrich. "Wud it be agreeable to me Dimmycratic colleague to put both feather beds an' his what-ye-call-it in th' same item?"

"In such circumstances," says th' Sinitor fr'm Virginya, "I would be foorced to waive me almost insane prejudice again th' hellish docthrines iv th' distinguished sinitor fr'm Rhode Island," he says.

An' so it goes, Hinnessy. Nivir a sordid wurrud, mine ye, but ivrything done on th' fine old principle iv give an' take.

"Well," says Mr. Hinnessy, "What difference does it make? Th' foreigner pays th' tax, anyhow."

"He does," said Mr. Dooley, "if he ain't turned back at Ellis Island."

QUESTIONS

1. Many spokesmen for manufacturing interests in this country combine praises of the beneficence of the "law" of supply and demand with pleas for higher tariffs. Is this a consistent attitude? Why?

¹⁰ Adapted from *Mr. Dooley Says*, copyright by Charles Scribner's Sons, 1909, pages 153-157.

2. Granted that wages are relatively high in this country and that the United States is a great manufacturing nation, can it be determined what rôle the tariff has played in each of these situations? What other factors have played a part?
3. Who pays the tariff?
4. What attitude toward the tariff would you expect to be taken by a banker who has made loans abroad? by a manufacturer of aluminum? by a professor of economics? by a Louisiana politician? Of which answer are you the most confident?
5. How does A. Cressy Morrison's description of the tariff-making process differ from that presented by Thomas Walker Page? How do you account for the difference?
6. What do you think would be the effect on business and industrial activity if Congress were to pass a single measure virtually abolishing the protective tariff on all goods, and preserving a small tariff for revenue only?
7. What would be the advantages and disadvantages of a forward-planning policy of gradually reducing the tariff level, so that after a period of twenty or thirty years the protective tariff would come to an end? What would be the practical difficulties in the way of reaching this goal?
8. Importation of coffee and rubber into the United States is hindered to some extent by foreign monopolies in these products. But rubber trees can be grown in Florida, and coffee trees have been raised under certain conditions even as far north as New York. Why not make ourselves independent of foreign monopolies through the device of protective tariffs on coffee and rubber?
9. Appraise the conflicting points of view concerning the relation of the tariff to the welfare of the farmers; then draw up a tentative tariff policy suitable for the spokesman of the farmers, or the "farm bloc."
10. "In 1920 the exports of all foodstuffs and food animals were \$2,034,000,000 compared with similar exports of \$892,000,000 in 1925." Mr. Hull thinks that this demonstrates in part that the protective tariff policy of the Republican party has been disastrous to the farmers. What other facts would you like to have before accepting this conclusion unreservedly?
11. What can be meant by saying that the tariff is a sectional rather than a national problem? If that is true why is it that Senators and Congressmen from Southern states are placed in such a ticklish position on the tariff issue at present? Does this suggest that the tariff is an industrial rather than a sectional issue?
12. Has the fact that the United States has changed from a debtor to a creditor nation any bearing upon the question of what would be a sound attitude for this country to take on the tariff? Why?

PRIVATE MONOPOLY AND THE "TRUST PROBLEM"

THIS chapter will continue the study of limitations upon free competition. It will deal primarily with corporate efforts to perfect private monopolies, and governmental attempts to frustrate them. There will also be mention of some other forms of monopoly not generally identified with the so-called "trust" problem. Included in the chapter are discussions of:

- (1) The formation of the United States Steel Corporation.
- (2) The growth of private monopoly, and the public demand for antitrust laws.
- (3) Activities of the federal government directed toward the preservation of competition.
- (4) Newer forms of industrial organization—the "supertrust."
- (5) Miscellaneous forms of monopoly—patents, "good will," trademarks, et cetera.

IN ADDITION to the tariff, the growth of private monopoly also has restricted the scope of competition. This restriction, unlike that in the case of the tariff, has been accomplished without government encouragement; in fact, generally in the face of governmental opposition. It is with a few of the problems of private monopoly that this chapter will deal.

For the monopolist, provided that he has absolute control of the supply or the demand of a product or service, the problem of deciding the price at which to sell or buy might appear rather simple. He would presumably set the price at that point yielding him the maximum return. If he were a seller he would fix the price to yield as much as possible above cost; if he were a buyer he would fix the price to get as much as possible for his money without permanently discouraging production.

As a matter of fact, however, this arbitrary adjustment of price at a point to yield a maximum return is far from simple. Let us take, for example, the case of a company we will assume to have an absolute control of the supply of gasoline. It is in a position to charge a dollar a gallon for the precious fuel if it finds it desirable to do so, for, by assumption, it controls every bit of the available supply. If a dollar is charged, however, there is immediate danger that the automobilist will curtail his purchase of gasoline, or perhaps sell his automobile and

seek his recreation in railroad rides or theater tickets. There is also the possibility that some enterprising individual will perfect a substitute fuel to which internal combustion engines can be adapted, and which can be sold for much less than a dollar a gallon.

The company must, of course, be careful not to fix the price at so high a figure as to threaten such disasters to its prosperity. Furthermore, it may find that as its output is increased the cost of production shows a tendency to go down, because of the economies of large-scale production and the possibility of distributing overhead costs over a larger number of units. In this case it may appear advantageous to decrease the price in order to increase sales, and so reduce unit costs. Thus it is seen that what would appear to be the relatively simple problem of adjusting a monopoly price to secure the largest possible return resolves itself into the problem of selecting from a very wide range of price policies.

Not only is the range of price policies very great in the case of complete monopoly control of a product or service, but the path toward an understanding of the effect of monopoly upon prices is further complicated by the fact that all degrees of monopoly exist, from the friendly arrangements of neighboring popcorn-stand proprietors to written agreements dividing the markets of the world for exploitation by the various participants in giant international combinations. Consequently it is extremely difficult to place any business neatly in such categories as "competitive" and "monopolistic." Where, for example, shall we place those industries engaged in producing steel, oil, bread, kodaks? All have been attacked at various times as having monopolistic characteristics, but at no time have they been entirely free from the force of competition.

Instead of trying to classify enterprises as essentially competitive or monopolistic—a classification which must be surrounded by a host of qualifications—a more useful procedure may be that of examining specific situations. In the situations described in this chapter, the element of monopoly is stressed. This does not mean that there is complete exclusion of competition but merely that competition is somewhat eclipsed by a unified control of supply or demand.

The first article contains a brief story of the formation of the United States Steel Corporation, which will appear subsequently in this chapter as the defendant in suits instituted against it by the United States government as an alleged violator of the federal antitrust laws. The account of the formation of this company is not presented as an undisputed example of monopoly, which the steel corporation insists is entirely foreign to its nature, but as an illustration of the successive steps in the building up of a giant industrial enterprise. The forma-

tion of such enterprises has become the basis of a large number of legal controversies, involving judicial interpretation of laws designed to prevent obstructions to competition.

THE FORMATION OF THE UNITED STATES STEEL CORPORATION¹

by Chester W. Wright

IN THE year 1858 one Andrew Kloman and his brother started a small iron forge at Allegheny, Pa. Their plant was worth about \$5,000. They made a reputation for putting out good and reliable products, particularly axles for railroads, and the business prospered. When more capital was needed the following year, Henry Phipps contributed \$1,600, and became a partner under the new firm name of Kloman and Phipps. During the Civil War the demand for iron was enormously increased and the iron and steel industry grew rapidly and was very prosperous. Late in 1861 Kloman and Phipps obtained more capital and built a new mill. In 1863, partly to settle a dispute between the partners, Andrew Carnegie took an interest in the business, and it became known as Carnegie, Phipps and Co., (Ltd.). In 1865 this partnership was consolidated with another in which Carnegie also had an interest, and took the name of the Union Iron Mills Co. About this time the property of the company was estimated as being worth between \$250,000 and \$300,000.

After the war it was a serious problem how the company was to find a market for its products, because the orders which had come as a result of the war ceased, and the use of iron for other purposes had not yet developed on a large scale. For a while profits were very low, but soon an increase in railroad and bridge building opened a new and rapidly expanding market for iron and steel.

The Union Iron Mills consumed large quantities of pig iron, and the owners decided that they could obtain it at less cost if they made their own pig iron instead of buying it. In 1870 a group of them organized a separate company and erected the Lucy blast furnace to smelt ore and make pig iron. This furnace, erected on improved plans, was one of the most efficient in the country, having an output of 50 tons a day at the start.

The next step in the development of the steel and iron industry came with the introduction of the new process of making steel known as the Bessemer process. It was this process which made cheap steel possible. In 1874 a number of the men connected with the Union Iron Mills and some others who were interested in railroads organized the Edgar Thompson Steel Co., and a large and efficient plant was erected for the manu-

¹Adapted from *Lessons in Community and National Life*, edited by L. H. Judd and L. C. Marshall, U. S. Department of the Interior, 1918.

facture of steel rails. At this time few railroads had steel rails; the cost was very high—\$106 a ton, and the total output of the country in that year was only 34,000 tons. But when it was found that steel rails lasted much longer, were safer, and made it possible to run much heavier trains, steel rails began to be used by the railroads.

The Thompson Co. had bought most of the pig iron it used from the company owning the Lucy furnace, but as the members of the former company did not all have a share in the ownership of the latter, a dispute arose over the price to be paid for the pig iron, and as a result the Thompson Co. decided that it would also make its own pig iron.

Another step toward integration and the further harmonizing of interests was taken in 1881 when the Thompson steel works, the Lucy furnaces, the Union Iron Mills, and some coke properties, together with \$1,000,000 new capital, were all combined into one firm with a capital of \$5,000,000. Mr. Carnegie, who had on various previous occasions acquired the interests of some of his partners in these concerns, owned a little more than half of the stock of this company and it was known as Carnegie Bros. and Co. (Ltd.).

A further important move toward integration was made the following year when the Carnegie interests purchased a large amount of stock in the Frick Coke Co., which was the dominant owner of coal lands and coke ovens in the Connellsville districts, whence came the best coking coal used in smelting iron ore.

In 1881 some competitors of the Carnegie Co. opened a big plant at Homestead for the manufacture of steel ingots, billets and rails, but they met with financial difficulties and two years later sold out to the Carnegie interests. Thus a rival was eliminated and a further step in integration was taken when the newly purchased works were turned into special mills for making a single kind of product. They were limited to the production of specialties such as bars, angles, beams, structural shapes, etc., such things as made possible the modern skyscraper, our great steel bridges and similar structures. In 1890 another threatening rival was eliminated when the newly erected Duquesne steel works were purchased.

In 1892 the various Carnegie interests were again consolidated in the Carnegie Steel Co. (Ltd.), with a capital of \$25,000,000. At the same time several new movements toward integration were started. The Union Railroad was built connecting the various plants about Pittsburgh and giving easy access to the railroads running out of the city. Then an old broken-down railroad connecting Pittsburgh and Conneaut Harbor on Lake Erie was purchased and practically rebuilt, while ore docks were erected with marvelously efficient machinery for transferring the ore from the boats to the railroad. To complete the ownership of the chain of transportation facilities, the Carnegie Co. now organized another company to build a fleet of ore boats to operate on the Great Lakes. Meanwhile, a half interest in the Oliver Mining Co. with extensive holdings of ore in the Lake Superior ore fields had been purchased, and these ore

holdings were later considerably increased. When this series of moves had been completed it placed the Carnegie Co. in an absolutely independent position for obtaining raw material, for it controlled practically every step from the mining of the ore near Lake Superior to the turning out of the finished rail at Pittsburgh. Integration had gone the full length of attaching to the rail mills the whole chain of industries necessary to give these mills materials and make them profitable.

In 1900, in order to adjust a dispute between the Carnegie Steel Co. and the Frick Coke Co. as to the price the former was to pay the latter for coke, the two concerns were combined in a single corporation called the Carnegie Co., capitalized at \$320,000,000, of which \$250,000,000 represented the estimated value of the Carnegie Steel Co., to such a size had its properties and business grown. It was then recognized as the most efficient and largest concern in the industry. Such was its history up to the time it entered the Steel Corporation.

To understand the situation which led to the organization of the United States Steel Corporation in 1901, it is necessary to go back a little and see what was taking place in the iron and steel industry as a whole outside the Carnegie concerns. The growth of this industry after 1860 had been phenomenal. In that year the total pig-iron output of the country had been 821,000 tons, while in 1900 it had reached 13,789,000 tons. The output of steel had been very small in 1860, but had risen to over 100,000,000 tons in 1900. The opening up of the great ore mines, the presence of abundant supplies of coal, combined with the introduction of labor-saving machinery under the direction of American organizing ability, had made this country in a few decades the leading manufacturer of iron and steel in the world.

During this period of rapid expansion, various individual concerns were going through much the same sort of growth as the Carnegie companies. As the size of the concerns engaged in the manufacture of the cruder forms of steel increased, the number of such concerns decreased through integration until finally a dozen of the largest were manufacturing more than half of the output of the whole country. Such a situation leads to very intense competition, especially in an industry like the steel industry which requires a great deal of machinery and organization. The rivalry between these large concerns was especially bitter because the iron and steel industry is peculiarly liable to great fluctuations in the demand for its products. Iron and steel are used so extensively and in so many lines of industry that when the country enters a period of prosperity an enormous demand for steel arises. It takes so many millions of dollars and so long a time to build an efficient steel plant that the output of steel cannot be greatly and quickly increased to meet such a demand. Consequently, prices rise rapidly and the profits are very high. Then when a period of depression sets in, the demand falls off even more quickly than it rose. During such a period of depression the people who have millions of dollars locked up in these big plants do not want to

shut down the mills if they can possibly help it, since this would leave their capital idle and would scatter their workmen so that they could not easily be gathered together again. Rather than shut down, the mills cut prices to a very low point, sometimes even below cost, in the hope that they can earn a little interest on their capital or at least avoid the greater losses which a shutdown would entail. Under such conditions cutthroat competition sets in and only the stronger concerns can survive. This explains the meaning of the statement which has been made that the steel industry is either a prince or a pauper.

It is partly because of the heavy losses which competition causes and partly because of the desire to secure control of the whole industry so as to control prices, that manufacturers in every line try to work out combinations. Combinations in the steel industry have been made on a large scale. At first these combinations took the form that is known as a pool; that is, a number of independent concerns get together and agree to limit their competition in one or more ways. They may decide to divide the orders among themselves instead of fighting for them, or to fix prices, or to limit the total output so as to prevent overproduction, or to divide the territory from which orders are received or to do several of these things. The purpose is the same in all cases; by checking competition the pool prevents price cutting and controls the industry. But each concern is left free in all other ways, except those referred to in the pool, to run its business as it sees fit. The chief difficulties met with in the pool are the frequent disputes that arise between the members about real or apparent violations of the rules. In the late 'eighties and the middle 'nineties a number of such pools were organized by the various concerns manufacturing steel rails, steel billets, wire nails, etc., but in the hard times following the panic of 1893 the agreements were constantly breaking down or being secretly violated.

About 1898 it was evident that the hard times were over and a period of prosperity was ahead, which would mean good profits to the steel industry, provided competition was not too severe. To insure this result and avoid the dangers of breakdown which the pool form of organization involved, a number of combinations or trusts were formed in the three years 1898 to 1900 in various branches of the steel industry, such as tin plates, sheet steel, steel tubing, steel wire, steel hoops, and structural steel. These trusts differed from the pool in that they brought the concerns under the control of one corporation and prevented the difficulties which arose under the looser arrangements of the pool. In a trust the only danger arises from competition outside of each trust. •

There were also organized during these years two concerns, the Federal Steel Co., backed by the great banking house of Morgan, and the National Steel Co., backed by the financial resources of Moore. Both of these steel companies were combinations of other companies and both were competitors of the Carnegie Steel Co. Seeing the dangers of competition ahead, the Carnegie companies threatened to enlarge and carry the com-

petition to the limit. This meant low prices and the loss of the big profits which prosperity seemed to promise. Moreover, the bankers and promoters who still held a large amount of stock in the new combinations were anxious to sell their stocks to the public, and they knew that if a competitive war broke out in the steel business the value of these stocks would fall and the public would hesitate to buy. This furnished an added reason for trying to harmonize the conflicting interests.

It was under these circumstances that a meeting of the leading men in the steel industry was called, and in 1901, under the leadership of Mr. J. P. Morgan, the plan to consolidate all of these concerns and small combinations in one gigantic company to be called the United States Steel Corporation, with a capitalization of about \$1,400,000,000, was carried through. The Steel Corporation as then organized owned 149 steel works of various kinds, vast ore, coal, gas, and limestone properties, over 1,000 miles of railroad, and over 100 vessels on the Great Lakes. It at that time controlled about two-thirds of the country's output of steel ingots, billets, rails, castings, nails, plates, structural shapes, and sheet steel, and about three-quarters of the output of wire rods and tin plates.

Since that time it has enormously increased in size, so that in 1916 it mined 33,000,000 tons of ore, made nearly 21,000,000 tons of steel ingots, employed over 25,000 people, and did a business valued at \$850,000,000. A portion of this growth has come by the purchase of other companies and a portion by building new plants, such as that at Gary, Indiana.

The expansion of the larger rivals of the Steel Corporation has, however, gone steadily forward. They are today even greater than at the time the Steel Corporation was organized. The Steel Corporation controls about one-half of the country's total output. Still there has been no such cutthroat competition in the business as had broken out at times before. The Steel Corporation has not sought to kill off its competitors by ruthless competition, but has tried to promote the stability of the industry. One method used was the series of Gary dinners, named after the president of the Steel Corporation who invited representatives of the leading independent producers to dinner from time to time. On these occasions the conditions and future prospects of the industry were talked over, and, apparently some consensus of opinion was obtained as to the proper prices for products. These dinners were abandoned in 1911, the year when the Government started a suit under the Federal antitrust laws to secure dissolution of the corporation.

* * *

The growth of monopolistic combinations or "trusts," as they are loosely described, early provoked opposition, and at times the monopoly question has been the dominant issue in American political life. Roosevelt, Wilson, and LaFollette rose to national prominence in a

large measure as leaders of the opposition to "trusts." This opposition came partly from smaller business men who were driven to the wall by the tactics of the larger units, and partly from representatives of the consuming public who feared that the individual consumer would be left at the mercy of industrial monopolies which might gouge him at will, unchecked by the force of competition. In addition, a growing number of people came to feel that the huge combinations of capital were exerting an undue influence and power over the political life of the nation.

The opposition to monopolistic combinations came in waves. The first wave ended in the enactment of the Sherman Act of 1890, a federal law designed to break up the trusts and restore a regime of competition. The attempt was not altogether successful, and a second wave of opposition produced the Clayton Act and Federal Trade Commission Act of 1914. Both of these later laws were designed to make more specific and more workable the general principle laid down in the first law. In addition, the Federal Trade Commission Act established an independent commission clothed with broad powers of investigation and administration, in order that the laws might be properly enforced. But even this drastic action did not entirely solve the problem. A renewed burst of corporate combination since the World War has led to a third wave of feeling, and the whole question has been thrown open again. This time a strong and increasing doubt of the desirability of competition as a cure for the evils of monopoly has been raised. Consequently the older legislation is being attacked by certain economists and spokesmen for the public, as well as by the representatives of large corporate interests. An increasing claim is being entered for the idea of "regulated monopoly" as an alternative to both competition and private monopoly. This idea will be treated in the next chapter dealing with government-controlled monopoly.

Our concern in the following group of selections is with antitrust legislation and its administration. The federal government as well as each of the forty-eight states has a very large volume of antitrust legislation, whose mere recital would consume several hundred pages. Here it is possible to give nothing more than an impressionistic picture of one phase of antitrust legislation—that enacted by Congress and administered by the federal government. The first article touches upon some of the corporate practices which led to a public demand for antitrust legislation. Following that is a brief discussion of the activities of the Department of Justice and the Federal Trade Commission in administering laws designed to prevent obstructions to competition.

GROWTH OF MONOPOLY AND DEMAND FOR ANTITRUST LAWS²

by T. W. Van Metre

THE corporation was the instrument for the development of what was probably the greatest economic problem of the latter part of the nineteenth century—the problem of combination and monopoly. It was inevitable that corporations engaged in the leading industries in the United States, where there existed such great opportunities for prosperous growth, should eventually become enormously wealthy and powerful, and it was equally inevitable that in time, as production expanded, great corporations which were rivals in the same branch of industry should engage in a competitive struggle for the possession of markets which all could serve. When rich and powerful organizations with tremendous resources at their command met in competition, the resulting conflict was disastrous. Defeat usually meant ruin, and victory was often purchased at the same cost.

The earlier industrial combination may be said in general to have been due chiefly to a desire for monopoly profits on the part of those by whom the combinations were effected. Sometimes the union of rival interests would come about because of pressure brought to bear on smaller concerns by a powerful corporation which, because of economies of large-scale production and preferential advantages secured from railroads, was able to give its weaker competitors a choice between absorption or destruction. The Standard Oil Trust was an example of this type of combination. Other combinations resulted merely because rival producers became convinced that greater profits could be secured through coöperation than through competition, and they pooled their interests accordingly.

Public protest against attempts at monopolization resulted in a large amount of prohibitive legislation directed against trusts and pools. The dissolution of such agreements was promptly followed, however, by the adoption of much more effective methods of combination—either the complete merging of the competing concerns into a single one, or the formation of a holding company, usually a gigantic corporation which took over the stock of the various combining companies in exchange for the stock of the new organization. The combinations were usually accompanied by large issues of watered stock which represented a capitalization of the expectations of the promoters of the new companies. The success of many of the earlier combinations and the advance in the market value of their watered stock revealed the fact that combination *in and of itself* might prove an enormous source of profit, and it was this idea as well as the desire to eliminate competition that furnished the incentive for many of the later industrial combinations. Speculative promoters took quick advantage of the trend toward combination, and they created for them-

² Adapted from *History of Foreign and Domestic Commerce in the United States*, the Carnegie Institution of Washington, 1915, pages 310-311.

selves and for others paper fortunes of great dimensions, many of which were transmuted into real fortunes during the rising tide of prosperity after 1896. The many combinations among most of the companies out of which was eventually formed the United States Steel Corporation, and the formation of that company itself, furnished conspicuous examples of excessive capitalization.

Too often the monopolistic combinations took advantage of their position to raise prices and exact heavy tribute from the consuming public. Attempted competition by outsiders was throttled by local price-cutting, by factors' agreements, or by other unfair devices. Unwilling to endure or tolerate some of the unfair practices, many States passed measures intended to prevent the formation of monopolistic combinations. However, the indulgent policy of a few States toward all private corporations virtually negated the efforts of the others. In 1890 the Federal Government, acting on its constitutional authority to regulate interstate trade, passed an antitrust law.

EFFORTS OF THE FEDERAL GOVERNMENT TO PRESERVE COMPETITION

IN 1890, on the crest of one of the waves of popular excitement about the "trust" problem, Congress passed the Sherman Anti-trust Act. The congressional intent in passing the act was quite clear. It was to strike a blow at large industrial enterprises which had found it more profitable to combine than to compete. To do this the obvious method seemed to be to pass a law making it a crime to interfere with free competition, and this was the kind of law Congress passed.

The first two and most important sections of that law are as follows:

"Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

"Section 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments in the discretion of the court."

It was also provided by Congress that a division be established in the United States Department of Justice charged with investigating violations of the law, and prosecuting suspected violators in the name of the federal government.

What Congress had in mind was the breaking up of great industrial combinations which, it was charged, were exploiting consumers and workers and even threatening to obtain a concentration of power greater than that of the government itself. But to do that Congress framed the law in such general terms that it outlawed such an agreement as that of a Philadelphia corner grocer to buy all of his prune supply from a particular New York wholesaler. The law said that "every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal."

A law so vague and general in terms could not be enforced until the courts had been called upon to explain what it meant. The government promptly brought suits to enforce the law, and some years later the United States Supreme Court embarked upon a long line of decisions explaining what the law means. That explanation is not yet completed, nor will it be so long as the Sherman Act remains on the statute books and the Department of Justice continues to bring suits to enforce it.

Concerns of the type which become involved in possible violations of the federal anti-trust law usually have ample war chests to retain competent lawyers. It is a very poor lawyer who cannot devise many reasons to show that a concern, charged by the U. S. Department of Justice with violating the anti-trust law is in truth the embodiment of economic righteousness. In those cases where the interests involved are large the final decision generally rests with the United States Supreme Court.

The United States Supreme Court, as has been observed previously in this volume, is composed of nine men of differing views on economic problems, and, consequently, of differing views on what constitutes violation of the federal anti-trust law. That means that as the personnel of the Supreme Court changes, decisions of the court defining anti-trust law violations change. A change of this type has recently been illustrated in cases concerning trade association activities. In 1921 a trade association program devised to keep the members posted in regard to sales, prices, and production in the industry was held by a majority of the members of the Supreme Court to constitute a violation of the Sherman anti-trust law because it served to restrain competition. (*American Column and Lumber Company et al. vs. United States*; 257 U. S. 377.) Four years later, following a shift in the personnel of the court, a similar agreement was found not to offend against the anti-trust law. (*Maple Flooring Manufacturing Association, et al. vs. United States*; 268 U. S. 563.)

With the shifting personnel of the Supreme Court, the more rapidly shifting methods of carrying on business activity, and the changing attitudes of successive Attorneys-General of the United States toward enforcement of the law, it is a hopeless task to attempt to make a precise catalog of violations of the Sherman anti-trust law. After one or two false starts in interpreting the law, the Supreme Court seems for several years to have endeavored to follow the strict letter of the law. During that period all restraints upon interstate commerce brought to the atten-

tion of the court were outlawed regardless of whether or not those fostering them could demonstrate that they were beneficial.

In 1911 the court abandoned this very strict interpretation and announced what has since come to be known as "the rule of reason." In the Standard Oil case (U. S. vs. Standard Oil Co. of New Jersey; 221 U. S. 1), Chief Justice White said that the Sherman Act "evidenced the intent not to restrain the right to make and enforce contracts, whether resulting from combination or otherwise, which did not unduly restrain interstate or foreign commerce, but to protect that commerce from being restrained by methods . . . which would constitute an interference which is undue restraint." According to this doctrine the court reserved the right to determine those restraints upon commerce which are "undue" and those which would be countenanced. Since the "rule of reason" was announced it has been sometimes followed and sometimes ignored, depending upon the inclinations of the court in each particular case.

The Supreme Court's announcement of a "rule of reason" in interpreting the Sherman Act was in a substantial measure responsible for congressional enactment of a new set of laws concerned with the "trust" problem. By announcing the "rule of reason" the Supreme Court said, in effect, that it would reserve the right to decide whether particular restraints of trade, offensive to the letter of the Sherman Act, were really contrary to its spirit. This frank assumption of judicial authority to handle the "trust" problem worried a great many people. Years were being consumed in fighting cases through the courts, and this new pronouncement assured continuance of doubt about the conclusion.

It was argued that it ought to be possible to pass a law outlining certain violations of the anti-trust law which would be clear to everybody. It was also contended that it ought to be possible to nip monopolies in the bud and prevent their growth to such enormous size as to make them extremely difficult to suppress. To accomplish these purposes the Clayton Act and the Federal Trade Commission Act were passed in 1914. The Clayton Act was designed to clarify the Sherman Act by outlining certain business practices and arrangements to be regarded as unreasonable restraints of trade. The Federal Trade Commission Act set up an independent federal commission, and gave it blanket legislative authorization to eliminate "unfair competitive practices," and to conduct investigations of economic problems.

Under the Clayton Act the principal practices and arrangements prohibited, in so far as they tend to lessen competition substantially, are price discrimination, except that based upon quantity or quality; tying agreements (agreements to purchase additional products for the privilege of buying one highly desired product); inter-company stockholding; and interlocking directorates of certain kinds. The Act exempts agricultural and labor organizations from the full force of the anti-trust laws, but the meaning of such clauses is only to be determined by a complete survey of the cases in which they have been involved, as is the case with all of the other provisions.

In the Federal Trade Commission Act there is the single pronouncement that "unfair methods of competition . . . are unlawful." Other sections of the Act prescribe the methods to be followed by the commission in preventing unfair competition, methods generally leading to court controversies in keenly disputed cases. The United States Supreme Court has stated that "the words 'unfair methods of competition' are not defined by the statute and are in dispute. It is for the courts, not the Commission, ultimately to determine as a matter of law what they include." (Federal Trade Commission vs. Warren, Jones and Gratz; 253 U. S. 421.)

The Clayton Act and the Federal Trade Commission Act, like the Sherman Act, have resulted in a long line of court decisions outlining their meanings. The commission, in addition to making many rulings on the subject of unfair competition, has built an extensive library of economic information, based upon investigations instituted by the commission or carried out at the request of Congress. This body of information is possibly the most valuable product of the legislation of 1914.

In 1918 Congress passed a law authorizing American companies engaged in the export trade to form coöperative associations to promote their interests abroad. Such activity was held desirable as a means of enabling American concerns to compete successfully with export associations of foreign countries, and such associations were exempted from what otherwise would have been the adverse effect of the Sherman Act.

As it is impossible to state what the federal anti-trust laws mean, except in specific cases, it is impossible to state, except in very vague terms, what has been accomplished as a result of their enactment. As a result of 324 cases instituted under the Sherman Act from 1890 to April 1, 1927, the cash return to the government in fines was \$2,108,228. Jails were occupied for periods ranging from four hours to one year by thirty-three offenders. Elaborate decrees dissolving industrial combinations have been entered, and a monumental written record has been compiled. In many cases manufacturers have abandoned activities criticized by the government, and unquestionably business activities have been modified by shifting court rulings in this field.

The activity of the Federal Trade Commission, which has no power to punish violators of the Federal Trade Commission Act, has probably curbed a tendency toward monopoly and restraint of trade in some instances, and has checked competitive practices prejudicial to the public welfare in others. In this connection the commission has compiled a fascinating array of material devoted to the question of "unfair competition." Its activities have given emphasis to an improved plane of business ethics, and its investigations have resulted in a useful body of economic information.

If one is asked to indicate precisely what the enforcement of the laws mentioned has actually accomplished, no positive statements can be made. Answers such as "a free and competitive field has been preserved," or "the door to individual enterprise has been kept open," find any validity

which they may have in their very vagueness. The only possible way of estimating the effect of the federal anti-trust laws is to study a small industrial or commercial segment to which they have been applied; and even such a method overlooks the fact that the existence of the laws has had an effect in directing the course of industries never prosecuted under the terms of such laws.

* * *

The nature of the cases arising from attempts by the federal government to preserve competition is indicated by the following selections. The first is an excerpt from the decision of the United States Supreme Court in the United States Steel Corporation case. The second is a summary of several cases resulting from Federal Trade Commission activities, written by representatives of the commission. Here, too, the steel corporation has been concerned.

In reading the court decision in the Steel Corporation case, it should be remembered that not all large combinations have fared so well in the courts. The United States Supreme Court has approved dissolutions of the Standard Oil Company, the American Tobacco Company, and numerous other combinations in an effort to restore competition. Many people think that such efforts have been consistently futile, but, at least, court records can be found which bristle with legal mandates to abandon any other paths than those of competitive righteousness.

THE STEEL CORPORATION AND THE COURTS³

THE suit instituted by the government against the United States Steel Corporation in 1911 under the terms of the Sherman Anti-trust Law was decided in 1920, when the Supreme Court refused to grant a decree of dissolution. Following is a summary of the opinion of the court as delivered by Mr. Justice McKenna:

1. A court, when asked to dissolve a corporation as an alleged violator of the Sherman Anti-Trust Act, should consider, not what the corporation had power to do or did, but what it now has power to do and is doing.

2. The Sherman Anti-Trust Act is directed against monopoly; not against an expectation of it, but against its realization.

3. The mere size of a corporation, or the existence of unexercised power unlawfully to restrain competition, does not of itself make such a corporation a violator of the Sherman Anti-Trust Act.

4. A holding corporation which by its formation united under one control competing companies in the steel industry, but which did not achieve monopoly, and only attempted to fix prices through occasional appeals to and confederation with competitors, whatever there was of wrongful intent not having been executed, and whatever there was of evil effect having been discontinued before suit was brought, should not be dissolved nor be separated from some of its subsidiaries at the suit of the

³ Adapted from the decision of the United States Supreme Court in the case of the United States *vs.* United States Steel Corporation, 251 U. S. 417.

government, asserting violations of the Sherman Anti-Trust Act, especially where the court cannot see that the public interest will be served by yielding to the government's demand, and does see in so yielding a risk of injury to the public interest, including a material disturbance of, and, perhaps, serious detriment to, the foreign trade.

In dissenting from this opinion, Mr. Justice Day said in part:

"For many years, as the record discloses, this unlawful organization exerted its power to control and maintain prices by pools, associations, trade meetings, and as the result of discussion and agreements at the so-called 'Gary dinners,' where the assembled trade opponents secured coöperation and joint action through the machinery of splendid committees of competing concerns.

"It inevitably follows that the corporation violated the law in its formation and by its immediate practices. The power thus obtained from the combination of resources had within its control the domination of the trade, and the ability to fix prices and restrain the free flow of commerce upon a scale heretofore unapproached in the history of corporate organization in this country.

"These facts established, it follows that if the Sherman Act is to be given efficacy, there must be a decree undoing, so far as is possible, that which has been achieved in open, notorious, and continued violation of its provisions.

"I agree that the Act offers no objection to the mere size of a corporation, nor to the continued exertion of its lawful power, when that size and power have been obtained by lawful means and developed by natural growth, although its resources, capital, and strength may give to such a corporation a dominating place in the business and industry with which it is concerned. It is entitled to maintain its size and the power that legitimately goes with it, provided no law has been transgressed in obtaining it. But I understand the reiterated decisions of this court construing the Sherman Act to hold that this power may not legally be derived from conspiracies, combinations, or contracts in restraint of trade. To permit this would be practically to annul the Sherman Law by judicial decree.

"This statute has been in force for nearly thirty years. Its interpretation by this court has become part of the law itself, and if changes are to be made now in its construction or operation, it seems to me that the exertion of such authority rests with Congress, and not with the courts."

Mr. Justice Pitney and Mr. Justice Clarke concurred in this dissent.

FEDERAL TRADE COMMISSION CASES ⁴

ONE of the largest and most important cases that has come before the Federal Trade Commission is what is known as the "Pittsburgh Plus

⁴ From a statement issued by the Federal Trade Commission, September, 1927.

Case.” In this proceeding the Commission issued an order requiring the United States Steel Corporation and others to discontinue the use of the Pittsburgh Basing Point system in determining the sales price of its steel products. The commission found the practice to be an unfair method of competition in violation of the Federal Trade Commission Act and to be price discrimination contrary to the Clayton Act. The respondents accepted the Commission’s order and agreed to discontinue the practice.

Under the Pittsburgh Basing Point plan the purchaser of steel at plants from points other than Pittsburgh was charged a price as though the plant were located at Pittsburgh. By this plan the purchaser paid the freight from Pittsburgh to the place in which the sellers’ plant was located, in addition to the regular quoted price of the steel. Thus, a purchaser from a Chicago steel mill had included in his price the imaginary freight rate from Pittsburgh to Chicago, just as though the steel bought by him in Chicago and there made, had been shipped from Pittsburgh.

The elimination of the Pittsburgh Basing Point price in the steel industry should produce the following effects beneficial to the public interest: “The sale of steel at low-cost-producing centers at prices commensurate with the cost of production”; “the saving to western and southern steel users of the extra prices charged for steel under the Pittsburgh Plus system”; “the saving to the consuming public of much more than Pittsburgh Plus, such as notably in the case of farmers, in which case the Pittsburgh Plus paid by the agricultural implement makers was reflected in the ultimate selling price of such implements to the farmers by an increase of more than double the amount of Pittsburgh Plus.”

The Beech-Nut Packing Company case involved the much discussed question of resale price maintenance, or, in other words, the right of a manufacturer to maintain in coöperation with others fixed standard prices at which his products are to be resold. The Commission’s original order required the Beech-Nut Company to discontinue its plan of sale of its products. The respondent took the case to the Circuit Court of Appeals, where the Commission’s order was set aside. The Commission thereupon carried the case to the Supreme Court of the United States, where the decision of the Circuit Court of Appeals was reversed and the Commission’s original order sustained. The Supreme Court in sustaining the Commission’s order said: “If the ‘Beech-Nut System of Merchandising’ is against public policy because of ‘its dangerous tendency unduly to hinder competition or to create a monopoly,’ it was within the power of the Commission to make an order forbidding its continuation. We have already seen to what extent the declaration of public policy, contained in the Sherman Act, permits a trader to go. The facts found show that the Beech-Nut System goes far beyond the simple refusal to sell goods to persons who will not sell at stated prices, which in the Colgate case was held to be within the legal right of the producer.” The court further said, “Under the facts established we have no doubt of the authority and

power of the Commission to order a discontinuance of practices in trading such as are embodied in the system of the Beech-Nut Company."

In the Winsted Hosiery Company case the Commission ordered the discontinuance of the use of the words "Merino," "Wool" or "Worsted" alone or in combination with any other word or words unless accompanied by a word or words designating the material other than wool of which the garments so marked are composed in part, or otherwise clearly indicating that such garments are not made wholly of wool. It had been the practice before the Commission's order for the respondent to advertise and designate certain of its underwear products which were part cotton and part wool as "Merino," "Natural Merino," "Gray Merino," "Natural Wool," "Australian Wool," and "Natural Worsted," thereby deceiving the public.

The Circuit Court of Appeals upon being appealed to by the Winsted Company reversed the Commission's order, and in return was reversed by the Supreme Court which in its decision upholding the Commission's order said: "That these findings of fact are supported by evidence cannot be doubted. The respondent in contesting the case maintained that the trade was not deceived by their labels because of the long-established custom of using such terms on goods which were made partly of cotton." In connection with this, however, the Supreme Court said: "The fact that misrepresentation and misdescription have become so common in the knit underwear trade that most dealers no longer accept labels at their face value does not prevent their use being an unfair method of competition. A method inherently unfair does not cease to be so because those competed against have become aware of the wrongful practice. The honest manufacturer's business may suffer, not merely through a competitor's deceiving his direct customer, the retailer, but also through the competitor's putting into the hands of the retailer an unlawful instrument which enables the retailer to increase his own sales of the dishonest goods, thereby lessening the market for the honest product."

* * *

Monopoly has been defined as unified control over supply or demand. The emphasis of the previous statements upon monopoly of supply should not blind the reader to the possibility of monopoly control over demand. In fact, one of the complaints in a recent case against the packers was the ability of the large packing houses, acting together, to decide how much they would pay cattle farmers for beef on the hoof. The large tobacco combinations, too, have been involved in similar complaints. It is sometimes said that the tobacco farmer, when he dumps the product of his season's work and investment upon the auction floor, will get just the price which the representatives of the dominant tobacco manufacturing companies of the conference think that he should have. In this way a monopoly control may be made

to work both ways—back toward the producer of raw materials and forward to the final consumer.

Organized efforts to extend this sort of double-edged control have resulted in what is known as the "vertical trust" or "super-trust." This interesting species—the last word in trustification—is described in the article which follows. In this article it should be noted that the word "trust" is used merely to characterize a method of organizing large-scale industry, and not in the legal or technical sense in which it first came to be identified with monopoly and restraint of trade. The Standard Oil Company, in its efforts to monopolize the oil industry, was first organized as a "trust" in the legal or technical sense of the word. Control was concentrated in this company by exchanging trust certificates for the voting stock of competing companies. The managers of the Standard Oil Company simply gave trust certificates as receipts for voting stock, thus giving them power to direct the policies of the companies whose stock was acquired and building up a monopoly. It was this practice—now abandoned—of using trust certificates to concentrate industrial control which led to the use of the word "trust" as a general label for combinations and monopolies. Today the word is frequently used even more loosely and in a third sense to describe large-scale industry, without any reference to its legal significance. The arrangements described below have generally been upheld by the courts as inoffensive to the anti-trust laws. None the less, attention should be directed to their effect upon competition in their respective fields.

THE SUPER-TRUST ⁵

by Evans Clark

THE trust is no longer simple, but exceedingly varied and complex. The United States Steel Corporation operates a dozen different industries contributory to the making of steel and steel products. The Ford Motor Company not only makes automobiles; it cuts trees, saws timber, mines coal and ore, runs a fleet of steamers, operates a railroad, blast furnaces, steel plants, rolling mills and glass plants and owns whole towns, including the churches and the stores. The United Drug Company, organized primarily to dispense drugs, now makes them in prodigious quantities—along with candy, rubber goods and writing paper.

The du Pont Company, which started its life making explosives, now manufactures artificial silk, transparent wrapping paper, moving-picture films, paints and varnishes; owns and operates a metropolitan hotel and theatre and a great building construction enterprise; and dominates a merger of sixty-two concerns which manufacture five of the best-known

⁵ Adapted from an article in the *New York Times*, December 13, 1925.

makes of passenger automobiles, most of the taxicabs and a large number of the motor busses and trucks that we see in the streets today.

The simple trust is organized horizontally, so to speak, on one plane of production or distribution—a string of shoe factories, a merger of railroad companies. The super-trust is organized vertically as well, downward in the progress of manufacture toward the raw material and upward toward the sale of the finished product to the ultimate consumer. It is, in fact, often referred to as the "vertical trust." But its structure is often much more complex than these geometric phrases indicate. Some of the biggest super-trusts are highly organized horizontally—to the point of monopoly—on one or more planes at once; also vertically, and again diagonally, so to speak, in entirely separated industrial fields.

The sweep and portent of the super-trust development as a whole is far more dramatic than the rise of the steel corporation, the du Pont or any other single concern. And not the least dramatic feature of it all is the fact that the public in general does not see the drama that is being played right before its eyes. It is the drama whose first act was the invention of the steam engine and whose last act has still to be written by its joint producers—man and the machine. Most people seem to think that the industrial revolution is over. The super-trust movement gives ground for the belief that it is hardly begun.

While few super-trusts can be classified as thoroughly organized—what limit can be set to the process, anyway?—there is hardly a big corporation in the country today that has not made decided progress along the road; and some have expanded in a number of industrial directions which would have seemed fantastic to the capitalist of thirty years ago.

In the absence of any thorough study of the subject, the writer made a cursory investigation of some forty of the largest and best known American corporations. They fell into the following groups: Eight public utilities, eight oil companies, six combinations of retail stores, four mining concerns, four companies engaged in the manufacture of foodstuffs and sixteen miscellaneous manufacturing concerns—machinery, paper and paper products, automobiles, rubber goods, tobacco, photographic supplies, shoes, electrical equipment, asphalt, building materials and glass products. Not one concern on the whole list confines itself exclusively to one plane of the productive process; every one has developed at least some of the attributes of the super-trust. Most of them are engaged in at least three to five separate industrial activities, while many showed ten and some over twenty.

Nor are these cases of isolated economic experiment. They are evidences of a changing economic order. The entire structure of our industrial life is entering a new stage of its development. As the process of organic evolution has been from the simple to the complex—from the single independent cell, with but one or two functions, to the more highly developed organism of many cells and many functions—so this economic change has been an evolution from the small independent factory, per-

forming but one of the functions of production, toward the super-trust—a complete and self-sufficient industrial organism. The progress is, in fact, sometimes called “industrial integration”—a good phrase, which gets the evolutionary meaning of the whole development.

It is fascinating to trace this latest advance of economic evolution—or the industrial revolution—as it took first one industry and then another by the force of inevitable logic. The first to fall in line were, of course, those to which its application was the most obvious. Steel led the way, with Andrew Carnegie at the head of the procession. As far back as 1897, Carnegie had got control of ore mines in Virginia, limestone in Pennsylvania and a half interest in the H. C. Frick Coke Company, which also operated coal mines; he had built also blast furnaces and had tied into his organization the Edgar Thompson Works, manufacturing steel rails; the Homestead mills, making steel shapes, and the Hartman Steel Company which transformed these basic shapes into a number of finished products.

So when Judge Gary and the elder J. P. Morgan began to negotiate the formation of a great new steel merger, Carnegie could afford to invite their emissary into his library, take out blueprints and maps, describe his whole organization in minute detail and make it plain that the information “need not be considered confidential.” He had proved that he could make tubes more cheaply than the National Tube Company, structural steel at a lower cost than the American Bridge Company, and wire at less cost than the American Steel and Wire. Today the Carnegie works, along with those other plants, are among the strongest units of one of the country’s most highly developed super-trusts—the United States Steel Corporation.

The Steel Corporation is certainly—as Judge Gary is fond of calling it—a “well-rounded proposition.” However well-rounded, it often eludes attention because its constituent parts operate under their own original names—are, in fact, continued as separate corporate entities and controlled, usually through stock ownership, by the parent corporation. Only a familiarity with the Steel Corporation’s organization would lead the average man to link the operations of the Oliver Iron Mining Company out in the Mesaba Range, Minn.; the Duluth, Mesaba & Northern Railroad, the Pittsburgh Steamship Company, the Illinois Steel Company, the Tennessee Coal and Iron Company or the Federal Shipbuilding Company with offices on the upper floors of 71 Broadway, where Steel Corporation officials lay down the broad lines of policy which knit all these concerns—and about sixty others—into the great coördinated business of steel making. The companies controlled by the Steel Corporation now have between them a total of 152 works engaged in the process of making steel, not to mention all the auxiliary forces which include, among others, 27 different railroad companies owning more than 2,000 miles of track.

Carnegie and Gary have set the type for the steel industry. All the other large steel concerns are now organized—more or less completely—

on the super-trust lines. Other metal manufactures also tend more and more toward the super-trust. The process has gone especially far in copper. The Anaconda Copper Company, for example, is one of the most highly developed, a well-knit combination of lumbering and mining—mining both the ore and the coal needed for manufacture—transportation by rail and water, smelting and refining, and the transformation of the raw copper by the controlled American Brass Company into half a hundred products,—wire, rods, tubes, cable, shingles, and so on.

While its assets are not as large as those of the Steel Corporation, the Ford Motor Company is probably the most highly developed super-trust in the country today. Ford begins as far down vertically as Gary does—with the ore and the timber—but he carries the process of manufacture into more intricate refinements. An atmosphere of pioneering hangs about Mr. Ford's undertakings, too, which is still fresh and to which no one can set the limit of accomplishment. The visitor can stand on the roof of the Ford power house at his River Rouge plant today and see the iron ore, limestone and coal coming in on his boats and railroads at one end of the plant, and at the other see that crude dirt emerging as parts of the finished Ford automobile packed away in freight cars ready to be assembled when they reach their destination—to put them together there would unnecessarily increase the shipping costs.

The General Motors Corporation has reached the super-trust stage by a very different route from the Ford organization. The Ford Motor Company is a one-man achievement, built from the ground up, step by step. General Motors is a gigantic merger of existing concerns into an aggregation of coordinating parts. Some sixty-two companies have been linked in a chain of production that does not reach down as far as Mr. Ford's—they buy most of their raw material and steel—but ties up the thousand and one subsidiary processes in the making of an automobile and carries them through to the finished Buick, Cadillac, Oakland, Olds and Chevrolet. In a different field the International Harvester Company rivals Ford and the steel companies in the functional development of its organization; and the oil companies, following the lead of Rockefeller, carry the industrial process through from the oil well in Mexico to the filling station on Broadway.

There is no necessary relationship between large-scale business enterprise and monopoly. Industries organized on a very large scale may be highly competitive: witness the keen competition between the Ford Motor Company and the General Motors Company. Likewise, the creation of a monopoly is not necessarily illegal in the United States, as might have been suggested by the earlier discussion of the antitrust laws. In fact, there are cases where the government promotes and gives legal sanction to monopolies. This is true in the case of patents by which the federal government gives monopoly rights to

the inventors of novel and useful devices, on the theory that such legal concessions promote inventive zeal.

There are other forms of monopoly which, while not specifically sanctioned by the government, are not subject to attack under the antitrust laws. Such, for example, is that form of monopoly resulting from "good will." The housewife is frequently heard to say, "I wouldn't think of trading anywhere except at A's department store," or "You can't interest me in any except B's laundry soap." Such assertions suggest a species of monopoly which has been obtained by the department store and the laundry-soap manufacturers. Their reputation may have been acquired either by the repetition of catchy advertising slogans or by the offering of superior service or products. Such a form of monopoly is not subject to attack under the antitrust laws, since it involves no illegal restraint of competition. That does not alter the fact that in so far as such good will exists it is a departure from a system of entirely free competition. Committed in advance to a particular store or brand of products, the buyer generally fails to do the careful weighing and discriminating assumed by those who expound the mechanics of a completely competitive system. The same thing applies to cases where the buyer is moved by patriotism, local or national, in directing his purchases. Instead of weighing carefully the merits and prices of all the available products, he is determined in advance to patronize certain sellers, and this fact gives to the sellers a degree of monopoly.

In the concluding section of this chapter, there are two statements devoted to elements of monopoly in our economic system which the government sanctions or at least does not disapprove. One indicates the industrial importance of the patent system. The other shows how a patent monopoly served in building up the much discussed aluminum "trust." In considering the patent system in relation to the antitrust laws the question should be asked, "Is it reasonable to expect that a competitive system such as that called for by the antitrust laws can be preserved when the government is itself engaged in granting monopolies through patents?"

THE PATENT SYSTEM ⁶

by Richard Boeckel

THE importance of the general subject of patent relations to American industry is indicated by the statement that seven-eighths of all industrial enterprises in the United States depend directly or indirectly upon patents or had their origin in patented inventions. Among the indus-

⁶ Adapted from an Editorial Research Report, April 1, 1925, Washington, D. C.

tries having important interests in patents are those producing chemicals and dyes, electrical and radio apparatus, agricultural machinery, automobiles, phonographs, typewriters, sewing machines, calculating machines, cameras and photographic supplies. The iron and steel, rubber, wood-pulp and printing industries likewise have important interests in patented processes.

The basic purpose of the American patent system has always been to stimulate invention. The inventor is regarded as rendering an important public service first in developing his invention and second in disclosing its details to the public. In exchange for the disclosure he is given an exclusive monopoly right to the invention, hedged about by every protection of law, for a period of seventeen years. This right applies alike to the American and foreign inventor, and to the purchasers of inventions. For a period of seventeen years the invention is the private property of the patentee to do with as he chooses. The courts have held that he is under no greater compulsion to use his invention than is the owner of a horse or an ox; or the owner of a piece of land, to put his property into employment.

Under this system, and, it is claimed, as a direct result of the monopoly principle, inventive effort and the utilization of inventions have been greater in the United States during the past seventy-five years than anywhere else in the world, contributing to a steady increase in production and in the general material well-being of the people.

PATENTS—THE PARENTS OF THE ALUMINUM MONOPOLY ⁷

THE manufacturers of aluminum kitchen utensils in the United States are almost entirely dependent upon the Aluminum Co. of America for their supply of raw materials, the quantity imported being relatively small. With the exception of three companies which operate rolling mills, these utensil manufacturers buy aluminum sheet in various forms. Of the three concerns operating rolling mills which are dependent upon the Aluminum Co. of America for their supply of ingot, one is owned and another is largely controlled by the Aluminum Co. of America.

The Aluminum Co. of America with its complete monopoly of the production of aluminum in the United States, fortified by a high protective tariff on imports, controls the domestic price of sheet aluminum to utensil manufacturers. This company obtained its monopolistic position at first by the purchase of a process patent for producing aluminum, issued to Charles M. Hall on April 2, 1889, which was augmented later by the purchase in October, 1903, of a conflicting and competing patent issued to Charles S. Bradley on February 2, 1892. During approximately the period of its operation under the patent monopoly, which was effective from April 2, 1889, to February 2, 1909, the Aluminum Co. of America acquired ownership of practically all the known commercial

⁷ Adapted from a *Report of the Federal Trade Commission on the House Furnishings Industry*, Vol. III, Government Printing Office, Washington, 1925.

deposits of bauxite (the material from which aluminum is obtained) in the United States, including large bauxite deposits from the General Chemical Co. in July, 1905, and from the Norton Co. in April, 1909. These two companies, in respect to such rights to bauxite as they retained or reserved for their respective businesses, were required by the Aluminum Co. of America never to engage in the production of aluminum. In 1912 the Department of Justice brought suit against the Aluminum Co. of America alleging violation of the anti-trust laws, which resulted in a consent decree in which the company was enjoined, among other things, from ever attempting to enforce the provision in the contracts with the General Chemical Co. or the Norton Co. binding them not to engage in the production of aluminum. However, so far as known, neither of these companies has ever engaged in producing aluminum. The company still holds its monopoly on the aluminum industry acquired through its twenty years of patent monopoly and its acquisition of control of commercial deposits of bauxite in the United States suitable for the manufacture of aluminum.

Under this monopoly the company's investment of \$20,000 in 1899, supplemented by a subsequent additional investment of about two and three-quarter million dollars, including a considerable amount issued for patents, grew to a combined capital and surplus amounting to \$110,-883,461 on July 31, 1921.

That form of monopoly resulting from "good will" is frequently related to legal concessions granted by the government in the form of trade-marks which confer monopoly rights on certain symbols and descriptive phrases used to characterize particular products. The relation is something as follows: a company wishing to establish its product as far as possible beyond the reach of competition, obtains the exclusive right to use a trade-mark, and advertises heavily in order to gain the "good will" of the public for the product so protected. By following this procedure it hopes that the public or a large part of the public will demand "X" shaving soap and no other. To be sure, the company does not have a monopoly of all shaving soap, for there are other varieties on the market, but it does have a monopoly on X which it has sought to persuade the public is something quite unusual. If it succeeds, it acquires a partial monopoly over the shaving-soap market. That this procedure bears a certain legal likeness to a patent monopoly is evidenced by the fact that trade-marks and "good will" are bought and sold for large sums of money. Perhaps the most conspicuous case is that of the Dodge Brothers automobile concern, whose good will was purchased a few years ago for the sum of forty million dollars.

Two selections on good will are given below. The first one presents some figures on good will assets. The second selection, submitted by

the vice-president of R. H. Macy and Company, a large department store in New York City, suggests in a concrete manner that an allowance for good will is added to the price of an article protected in such a way. This point is made through a comparison between the wholesale prices of articles protected by good will and the wholesale prices of Macy-manufactured articles not so protected. It should be said in explanation that the Macy department store gets its stock of goods partly by purchase from the regular wholesale channels and partly from factories under its own control.

GOOD WILL ASSETS ⁸

by Ralph Borsodi

FOLLOWING are some typical examples of how manufacturers who are well equipped with good will assets are now earning profits.

Cluett, Peabody and Co., who manufacture Arrow Collars, listed in their assets in 1925 a good will of \$9,000,000, and their profits that year were \$2,420,699.

The Borden Co., manufacturers of Eagle Brand condensed milk, carry their trade-marks at a value of \$5,942,876. That is roughly six million dollars. Their net income that year was \$5,412,705 as compared with their net income the previous year of about \$5,000,000.

The Coca-Cola Co. carried a good will of \$20,656,000, with earnings in 1924 of \$6,050,000 and in 1923 of \$4,500,000.

Here is a list which covers merely the amount of good will which some of these manufacturers carry on their balance sheets:

B. F. Goodrich Co.	\$57,000,000.00
American Tobacco Co.	54,099,430.40
Liggett & Myers	40,709,711.00
American Cotton Oil Co.	23,594,869.00
P. Lorillard Co.	21,137,927.00
General Cigar Co.	19,326,000.00
Corn Products Refining Co.	16,000,000.00
Goodyear Tire & Rubber Co.	12,500,000.00
Ward Baking Corporation	11,383,413.00
Stewart-Warner Speedometer Corp.	9,766,099.00
V. Vivaudou (Inc.)	6,722,975.00
William Wrigley, Jr., Co.	5,942,876.00
Julius Kayser Co.	5,644,000.00
Manhattan Shirt Co.	5,000,000.00
Hartman Corporation	4,992,992.00
Hershey Chocolate Co.	4,903,930.00

⁸ Adapted from hearings before the House Committee on Interstate and Foreign Commerce, April 23, 1926.

Shredded Wheat Co.	\$4,500,000.00
Simmons Co.	2,430,379.00
Torrington Co.	1,923,697.00
R. J. Reynolds Tobacco Co.	1,319,091.00
Pyrene Manufacturing Co.	1,002,450.00

In many cases this asset of good will is capitalized by the issue of stock, and in the majority of cases a profit is earned on that capitalization.

GOOD WILL AND PRICE ⁹

by Percy S. Straus

WE WILL now go into the matter of foodstuffs. We will take up soups. We have Campbell's tomato soup and Macy's tomato soup.

The United States Testing Co. made a chemical analysis of the products and reported:

"The analysis shows little or no difference in the general composition of the products—Campbell's and Lily White.

"Both samples contain starch which has been added as a thickener, and contain no artificial coloring matter or preservative."

We pay for Campbell's \$3.61 for 4 dozen. That is about 90 cents a dozen. We sell them both for 9 cents, and our nearest competition on Campbell's is 10 and 11 cents. In other words, we pay the difference between 70 and a little over 90 cents a dozen for the element of good will contained in the Campbell product.

Here we have vaseline made by the Chesebrough Manufacturing Co., and here we have a vaseline of our own. We do not make vaseline. It is purchased in bulk by us and put up in these jars. The United States Testing Co. says of these two items, that the contents of the vaseline package amounts to 15.6 ounces, and the package of our make contains 12.6 ounces, or 3 ounces less than the other. The color of Chesebrough's is white; the color of ours is cream. Specific gravity of the former is 0.855 at 60 degrees Centigrade; specific gravity of ours is 0.860 at 60 degrees Centigrade, a difference of five thousandths in specific gravity.

The testers state in addition: "There are only slight differences in the composition and properties of the two samples. The sample of vaseline is lighter in color, and is somewhat softer (lower melting point) than the petrolatum, but both come within the U. S. P. requirements for purity. It is difficult to say whether or not one product is more advantageous than another from the medicinal point of view."

The wholesale price of the Chesebrough product is 57 cents, and our product is billed to us by our factory at 24c. It is self-supporting, and is just run for a service department. The retail price of Chesebrough's is 69 cents, and the retail price of ours is 49 cents to the consumer.

⁹ Adapted from hearings before the House Committee on Interstate and Foreign Commerce, April 23, 1926.

I ask whether the difference in the price we pay for our own product, 24 cents, and the other product, 57 cents, means that the manufacturer is getting something for the good will of the vaseline name which he controls at the present time.

Now we come to baking powder. Everyone has heard of Royal baking powder. We have a sample of Royal baking powder and of Red Star baking powder. The United States Testing Co. says:

"Although the two powders vary considerably in their composition, the available carbon dioxide content, which is the best measure of the efficiency of the powder, is only slightly higher in the Royal powder.

"In general, the two samples should be equally satisfactory for use in baking."

The price from the manufacturer for the Royal baking powder is \$4.47 per dozen, or 37 cents per can. We pay 25.9 cents per can for the Red Star baking powder. There are 16 ounces in the Red Star, the Macy can, and 12 ounces in the Royal can. Thus there is 33½ per cent more in the Macy can. We pay 23 cents less per pound for it.

The last exhibit we have is that of cod liver oil emulsion. We have a sample of Scott's emulsion and an emulsion of cod liver oil manufactured by the Norwich Pharmaceutical Co. The United States Testing Co. says:

"The above results indicate that the oil present consists of pure cod liver oil."

That statement is made for both products. According to the above analysis, both emulsions are of equal value, each containing slightly less than 20 per cent of genuine cod liver oil. Scott's emulsion is 14½ fluid ounces while ours is 16 fluid ounces. The cost of Scott's emulsion is 71 cents while the other emulsion costs 46 cents.

The difference of about 25 cents is paid for the good will of Mr. Scott.

. . .

The connection between patriotism and monopoly may not be at once apparent. When it is remembered, however, that "buy at home" campaigns are the order of the day for nations, states, and towns, the relationship becomes quite clear. The aim of "buy at home," "patronize your neighborhood store," "keep Bill Dollar circulating in Homeville" campaigns is to shut out the competition of foreigners or too-distant neighbors, and keep money from emigrating in purchase of goods. In this way the sphere of competition is narrowed, and the tendency toward monopoly is strengthened.

Below are three short selections illustrating the "buy at home" attitude. They happen to be taken largely from foreign countries, but they can be easily supplemented by a wide variety of examples near at hand.

"BUY IN BRITAIN"¹⁰

by William Boyd Craig

WHEN England's king visited the British Industries Fair at Shepherd's Bay he found that typewriters used by departments of his government were made in America. When producers of British typewriters showed him some of their own make and explained that they could not sell them to the departments, the king took the matter to heart and promised to "see to it." The *Westminster Gazette* now announces that the deputy controller of the stationery office, who controls the purchase of supplies, has stated that henceforth English machines will be bought.

English economists and statesmen have been discussing for some time the advisability of a strenuous campaign for the purchase of home products in the home markets. This found its most recent expression in the Merchandise Marks Bill. The slogans "Buy British Goods" and "British Goods Are Best" were calculated to stir up a feeling that preference should be accorded goods of home production, and the slogans were used as cancellation marks for stamps. A peculiar twist to the scheme was discovered by the London British Industries, organ of the Federation of British Industries. It was brought to light that the machines which imprinted the commendatory slogans were of foreign construction. Some were American and some were Norwegian.

The English Government is not the only one to be faced by strange problems involving a conflict between patriotism and price. The Navy Department of our own government has the problem on its hands of deciding whether to buy an American-made product or to purchase from a foreign source at a smaller cost. The Yangtze River Patrol Service called for the building of six new gunboats, and the money was appropriated by Congress. The original plans, says the *China Weekly Review*, called for the construction of the hulls in China and the Diesel engines in America. Navy officers gave the Shanghai shipyards a chance to bid, and it was found that reciprocating steam engines instead of the Diesel engines would cut the cost by \$2,000,000, or almost half of the total cost. New York labor unions, when they heard that the navy officials were inclined to consider seriously the Shanghai bids, began a strenuous protest, insisting that since the ships are to be American ships they should be built in America, with American labor.

TRADING WITH THE HOME-FOLKS¹¹

by William E. Peck

As a rule, buyers in South American countries prefer to purchase their requirements in Europe. One cause of this preference lies in the fact

¹⁰ Adapted from an article in *The Nation's Business*, April, 1926.

¹¹ Adapted from an address before the Foreign Commerce Department, Chamber of Commerce of the U. S., May 21, 1925.

that whereas there is a large Italian, English, German and French population in both Argentine and Brazil which forms a nucleus for large trade in goods made in their respective countries, the American population is negligible—about 4,000 all told in Argentine and perhaps half that number in Brazil. In Buenos Aires there is a British colony of nearly 50,000 people, which supports several Protestant churches, two daily newspapers, many clubs, hospitals, schools and other organizations. Not only does this colony consume a large amount of British products but it also stimulates a demand for British goods on the part of other residents of Buenos Aires of whom a liberal percentage are wont to imitate the British people, not only in dress, but in sports as well. When the representative of an American manufacturer goes to Buenos Aires he finds many wholesale and retail establishments owned by Italian, English, Germans and French, and he must be able to overcome the natural tendency of these merchants who give preference to goods made in their home countries.

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QUESTIONS

1. "It is partly because of the heavy losses which competition causes . . . that manufacturers in every line work out combinations." Why, if this statement by Mr. Wright is true, should the government be following a policy of trying to prevent combinations? Is the government desirous of causing manufacturers to sustain losses? If not, what is the reason?
2. It is a crime to violate the Sherman Anti-trust law. Do you put such violations in the same general class of crimes as murder, arson, or highway robbery? If not, what do you think is the nature of the crime involved?
3. By the Clayton Act, labor and agricultural organizations are exempted from some of the force of the Sherman Act. What justification can you see for such an exemption?
4. It is reported that European governments are inclined to take a more favorable attitude toward monopoly than does the government of the United States. They are known, in some instances, to have gone so far as to encourage the formation of trusts or "cartels." How do you account for this marked contrast in attitude? Have the political histories of the various countries anything to do with it?
5. Would you expect the enforcement of the antitrust laws to vary from one political administration to another? If so, would the members of those administrations which did not press the enforcement of the antitrust laws be guilty of a betrayal of the public confidence?
6. How would you expect organized labor to feel toward the trusts? To what extent is their attitude influenced by the fact that they are consumers as well as employees?

7. Would you expect the enforcement of the antitrust laws to vary greatly during different periods in the history of the United States Supreme Court? Why?
8. It is said that courts do not make laws; they merely interpret them. Do you think this distinction of practical importance? Was it of importance in the steel case?
9. Why should patent monopolies be regarded not only as legal but as highly desirable, while certain other forms of monopoly are curtailed by law?
10. The selection on good will by Mr. Straus was taken from his testimony before a House committee. The committee was considering legislation which would legalize "resale price maintenance," or the determination by manufacturers of the price which retailers should ask of consumers. This legislation was demanded by certain nationally known manufacturers who claimed that the good will attached to their products was being misused by retailers who would cut prices on such nationally advertised products in order to attract customers into the store. The result of such practice, it was argued, made it impossible for a standard price to be maintained for the articles in question, and the sales of the manufacturer through the regular channels were impaired. In the committee hearings, Mr. Straus represented the price-cutting retailers. From the viewpoint of public welfare, what arguments could be used on the opposing sides of the controversy?
11. What effect, if any, does the "Buy-at-home" attitude have on prices?
12. Do you agree with the late President Wilson that "monopoly is contrary to the genius of free government"? If so, how extensive do you think the prohibition of monopoly should be? Do you think such laws as you suggest could be successfully enforced?

CHAPTER XII

GOVERNMENT-CONTROLLED MONOPOLY AND THE PUBLIC UTILITY PROBLEM

THIS chapter is designed to further the study of present-day limitations upon the scope of competition by an examination of government-controlled monopoly, with special reference to problems of railroad regulation. Included will be discussions of:

1. The field of public regulation and the types of enterprise included in it.
2. Reasons for the failure of competition in the railroad industry and some of the abuses resulting from unrestricted railway competition.
3. Development of public control of the railroads.
4. Court review of the reasonableness of rates set by the regulating authorities and the problem of public utility valuation.
 - (a) Opposing theories of valuation.
 - (b) The relation of present and future investments to the problem of regulation.
5. The widening sphere of public utility regulation.
 - (a) The problem of controlling "Giant Power."

THERE are many ways in which prices are indirectly influenced by public authority. The hours of labor in an industry or the safety and sanitary conditions to be maintained may be prescribed by the government. Insurance for workers may be ordered by law, minimum standards of quality of products to be sold may be prescribed, or reports covering certain details of the business may be called for. All of these government regulations will affect the cost of producing any given product or service, and will tend sooner or later to affect the price.

The government, however, does not limit its price-influencing activities to such indirect regulations. In a large and increasing number of cases the sale prices of products and services are definitely prescribed by public authority. The prices of many so-called public services, such as those of railroads, electric light and power companies, street-car lines, telephone companies, water companies, warehouses, and insurance companies, are so fixed.

The minimum rate of wages to be paid is sometimes fixed by the government. Interest rates for a large volume of long-time loans are

directly fixed by government loan corporations actively engaged in this field, and interest rates for commercial loans are indirectly influenced by the Federal Reserve Board through its control of the rediscount rate to be charged to member banks. Postal rates are, of course, fixed by the government.

In the case of fixing the prices to be charged for a government service, such as that provided by the post office department, the problem involved is relatively simple. The government is the proprietor of the enterprise. It has certain costs of operation to pay. Rates can either be adjusted to cover the costs of operation, or in case it is regarded as socially and politically desirable to have very cheap postal rates, the charges can be adjusted so as to defray a part of the operating expenses, and the balance can then be made up by general taxation. The policy in the past has been to let the post office department operate at a loss in order to promote the interchange of information and parcels throughout the country.

In the case of a government-owned enterprise the question of prices to be charged is largely one of public policy. Government control of prices to be charged by privately owned enterprises, however, presents a host of complications. First there is the question of governmental authority to interfere with private property. Why, asks the manager of a telephone company, do you regulate the rates which we charge for our service when you don't regulate the price of shoes or bread? The question is not a simple one. It has caused a great deal of anguish for the courts when appealed to by enterprises questioning the power of the government to regulate rates. The courts have gradually built up a classification of enterprises held to be "affected with a public interest," and therefore subject to varying degrees of government control. The number of enterprises which come within this classification is constantly being expanded, almost always over the protest that regulation is an interference with property rights guaranteed by the federal Constitution.

After it is determined that the prices to be charged by an enterprise are properly subject to government control, the problem of adjusting such prices remains to be settled. It has been held by the courts that the government must fix prices in such a way as to insure to the owners a reasonable return upon a reasonable value of property devoted to public service. What is a reasonable return? What is a reasonable value? These are questions about which, of course, there is bound to be a wide difference of opinion. What seems reasonable to a stockholder in a street railway company may seem outrageous to a person whose only connection with the company is to put a dime in the fare box twice a day. Moreover, these questions must be settled

before the rates prescribed by public authority are free from attacks in the courts.

In this chapter there will be a consideration of some of those industries which are subject to public regulation, as well as an indication of the difficulties involved in fixing the rates to be charged. In following the details of the controversy centering around government price fixing, the student should not lose sight of the central fact that a wide range of prices is so fixed. To the extent that this is true, of course, prices fail to be fixed by supply and demand operating through the force of competition, and another important exception to the generalization that prices are so fixed must be noted.

The first selection in this chapter is a statement by the Chief Justice of the United States Supreme Court outlining the enterprises which at various times have been regarded by courts as properly subject to government price control. The statement is of more significance as an indication of how jurists reason on this subject than it is as a catalog of public utility enterprises. It is for the student to see whether around this classification he can build a set of distinctive economic characteristics broad enough to include railroads, banks, grain elevators, insurance agencies, and telephone companies—for all of these are at present regarded as “affected with a public interest” and so subject to government regulation.

ENTERPRISES SUBJECT TO PUBLIC REGULATION ¹

by Chief Justice William Howard Taft

BUSINESSES said to be clothed with a public interest justifying some public regulation may be divided into three classes:

1. Those which are carried on under the authority of a public grant of privileges which either expressly or impliedly imposes the affirmative duty of rendering a public service demanded by any member of the public. Such are the railroads, other common carriers, and public utilities.

2. Certain occupations, regarded as exceptional, the public interest attaching to which, recognized from earliest times, has survived the period of arbitrary laws by Parliament or Colonial Legislatures for regulating all trades and callings. Such are those of the keepers of inns, cabs, and grist mills.

3. Businesses which, though not public at their inception, may be fairly said to have arisen to such and have become subject, in consequence, to some government regulation. They have come to hold such a peculiar relation to the public that this is super-imposed upon them. In the

¹ Adapted from the opinion of the Supreme Court in *Wolf Packing Co. vs. Kansas*; 262 U. S. 522, June 11, 1923.

language of the cases, the owner, by devoting his business to a public use, in effect, grants the public an interest in that use, and subjects himself to public regulation to the extent of that interest, although the property continues to belong to its private owners, and to be entitled to protection accordingly.

In Chief Justice Taft's classification there are no clear-cut reasons why the particular industries in question should be regulated other than that they seem to fit a legal formula. Public regulation of industry in the United States, however, has not received its impetus from legal reasoning. Rather it has resulted from widespread conviction that in certain industries competition cannot be depended upon to assure an adequate supply of products and services of good quality at reasonable rates; in other words, a conviction that in certain industries "competition won't work." The nature of the industries where the beneficence of competition has been challenged and public regulation substituted can best be illustrated by the railroads, which will provide most of the material presented in this chapter. Public regulation of the railroads has not only been maintained longer than that of any other major industry, but it has gone to greater lengths. Some of the reasons why competition failed as an adequate protective and regulative force in this industry, and thus paved the way for public regulation, are set forth in the following article.

THE FUTILITY OF RAILWAY COMPETITION ²

by Arthur T. Hadley

WE HAVE been taught to regard competition as a natural, if not necessary, condition of all healthful business life. We accept, almost without reserve, the theory that, under open competition, the value of different goods will tend to be proportional to their cost of production. According to this idea, if the supply of a particular kind of goods is short, and the price comes to exceed the cost of production, outside capital will be attracted into the business until the supply is sufficiently increased to meet the wants of the market. But as soon as this point is passed, and the price begins to fall below the cost of production, people will refuse to produce at a disadvantage, the supply will be lessened, and the price will rise to its normal figure. If all this be true, competition furnishes a natural regulator of prices, with which it is wicked to interfere.

This may once have been true; but it is not true today that people

² Adapted from *Railroad Transportation Its History and Laws*, G. P. Putnam's Sons, 1885.

find it to their interest to refuse to produce, if price drops below cost. To stop producing often involves the greater loss.

Let us take an example from the railway business. A railroad connects two places not far apart, and carries from one to the other 100,000 tons of freight a month at 25 cents a ton. Of the \$25,000 thus earned, \$10,000 is paid out for the actual expense of running the train and loading and unloading the cars; \$5,000 for repairs and general expenses; the remaining \$10,000 pays the interest on the cost of construction. Only the first half of these items varies in proportion to the amount of business done; the interest is a fixed charge, and the repairs have to be made with almost equal rapidity, whether the material wears out, rusts out, or washes out. Now suppose a parallel line is built, and in order to secure some of the business offers to take it at 20 cents a ton. The old road must meet the reduction in order not to lose its business, even though the new figure does not leave it a fair profit on the investment; better a moderate profit than none at all. The new road reduces to 15 cents; so does the old road. A 15-cent rate will not pay interest unless there are new business conditions developed by it; but it will pay for repairs which otherwise would be a dead loss. The new road makes still further reduction to 11 cents. This is better than nothing. If you take 11 cents for freight that costs you 25 cents to handle, you lose 14 cents on every ton you carry. If you refuse to take it at that rate, you lose 15 cents on every ton you do not carry. For your charges for interest and repairs run on, while the other road gets the business.

Under competition such cases are of constant occurrence, and almost a matter of course when one of the roads is bankrupt. "Business at any price rather than no business at all" is the motto of such a road. It has long ceased to pay interest; it can pay for repairs by receiver's certificates; and it will take freight at almost any price that will pay for the men to load the goods and the coal to burn in the engine. And it is to be observed that when a competing road does not carry the war to this point, it is not a competitive rate. They may agree on a 25-cent rate, thinking it will be a reasonable and paying one; but such a rate is actually determined by combination, even though they take cost of service into account. The theory that when payment falls below cost active competition will cease, fails. This is because far below the point where it pays to do your own business it pays to steal business from another man. This influx of new capital will cease; but the fight will go on, either until the old investment and machinery are worn out, or until a pool of some sort is arranged. This is not confined to the railway business. Whenever there are large permanent investments of capital we see the same cause at work in the same way.

There is a marked difference between mercantile competition, and competition of railroads or factories, such as we have been considering. In the former case its action is prompt and healthful, and does not go to extremes. If grocer A sells goods below cost, grocer B need not

follow him, but simply stops selling for a time. For (1) this involves no great present loss to B. When his receipts stop, most of his expenses also stop. (2) It does involve present loss to A. If he is selling below cost, he loses more money, the more business he does. (3) It cannot continue indefinitely. If A returns to paying prices, B can again compete. If A continues to do business at a loss he will become bankrupt, and B will find the field clear again.

But if Railroad A reduces charges on competitive business, Railroad B must follow. (1) It involves a great present loss to stop. If a railroad's business shrinks to almost nothing, a large part of its expenses run on just the same. Interest charges accumulate; office expenses cannot be suddenly contracted; repairs do not stop when traffic sinks, for they are rendered necessary by weather as well as wear. (2) If B abandons the business, A's reductions of rates will prove no loss. The expense of a large business is proportionately less than that of a small one. A rate which was below cost on 100,000 tons may be a paying one on 200,000. (3) Profitable or not, A's competition may be kept up indefinitely. The property may go into bankruptcy, but the railroad stays where it is. It only becomes a more reckless and irresponsible competitor.

The competition of different stores finds a natural limit. It brings rates down near to cost of service, and then stops. The competition of railroads or factories finds no such natural limit. Wherever there is a large permanent investment, and large fixed charges, competition brings rates down below cost of service. The competitive business gives no money to pay interest or repairs. Sometimes the money to pay for these things comes out of the pockets of other customers, who do not enjoy the benefit of the competition and are charged much higher rates. Then we have the worst forms of discrimination. Sometimes the money cannot be obtained from any customers at all. Then we have bankruptcy, ruin to the investor, and—when these things happen on a large scale—a commercial crisis.

* * *

The competition between railroads, just described, led not only to bankruptcies but also to discrimination and other abuses on the part of the railway corporations. The nature of these practices is indicated in the following selection summing up the charges made against the railroad companies, just prior to the enactment of federal legislation providing for regulation.

THE PRELUDE TO FEDERAL RAILROAD REGULATION ³

A SENATE investigating committee reported that:

1. Local rates were unreasonably high, compared with through rates.
2. Both local and through rates were unreasonably high at non-

³ Adapted from the *Report of the Senate Select (Cullom) Committee on Interstate Commerce*, I, 1886.

competing points, either from the absence of competition or in consequence of pooling agreements that restricted its operation.

3. Rates were established without apparent regard to the actual cost of the service performed, and were based largely on "what the traffic will bear."

4. Unjustifiable discriminations were constantly made between individuals in the rates charged for like service under similar circumstances.

5. Improper discriminations were made between articles of freight and branches of business of a like character, and between different quantities of the same class of freight.

6. Unreasonable discriminations were made between localities similarly situated.

7. The effect of the prevailing policy of railroad management was, by an elaborate system of secret special rates, rebates, drawbacks and concessions, to foster monopoly, to enrich favored shippers, and to prevent free competition in many lines of trade in which the item of transportation is an important factor.

8. Much favoritism and secrecy introduced an element of uncertainty into legitimate business that greatly retarded the development of our industries and commerce.

9. The secret cutting of rates and the sudden fluctuation that constantly took place were demoralizing to all business except that of a purely speculative character, and frequently occasioned great injustice and heavy losses.

10. In the absence of national and uniform legislation, the railroads were able, by various devices, to avoid their responsibility as carriers, especially on shipments over more than one road, or from one state to another; and shippers found great difficulty in recovering damages for loss of property or for injury thereto.

11. Railroads refused to be bound by their own contracts, and arbitrarily collected large sums in the shape of overcharges, in addition to the rates agreed upon at the time of shipment.

12. Railroads often refused to recognize or to be responsible for acts of dishonest agents acting under their authority.

13. The common law failed to afford a remedy for such grievance, and in cases of dispute the shipper was compelled to submit to the decision of the railroad manager or pool commissioner, or run the risk of incurring further losses by greater discriminations.

14. The differences in the classifications in use in various parts of the country, and sometimes for shipments over the same roads in different directions, were a fruitful source of misunderstandings, and were often made a means of extortion.

15. A privileged class was created by the granting of passes, and the cost of passenger service was largely increased by the extent of this abuse.

16. The capitalization and bonded indebtedness of the roads largely exceeded the actual cost of their construction or their present value.

and unreasonable rates were charged in the effort to pay dividends on watered stock and interest on bonds improperly issued.

17. Railroad corporations had improperly engaged in lines of business entirely distinct from that of transportation, and undue advantages had been afforded to business enterprises in which railroad officials were interested.

18. The management of the railroad business was extravagant and wasteful, and a needless tax was imposed upon the shipping and traveling public by the unnecessary expenditure of large sums in the maintenance of a costly force of agents engaged in a reckless strife for competitive business.

* . . *

Given an industry of key importance to the community, such as the railroads, where unrestricted competition tended to lead to bankruptcy on the one hand and grave abuses on the other, the outcome could scarcely be other than some sort of public control. The development of a system of railroad regulation by commissions clothed with grants of authority from state legislatures and finally from Congress, is sketched below.

GROWTH OF PUBLIC CONTROL OF THE RAILROADS

PUBLIC regulation of railroads in this country began about 1870. After the federal government and the states had made enormous grants of land to the railroads, and after the various governments, both state and local, had aided them by the issue of bonds, it appeared that the railroads were abusing their powers by discrimination and unfair rates. It is true that in many cases the railroads were forced to resort to these questionable practices because of the cutthroat character of railway competition, a situation apparently inseparable from the nature of railway investment and costs. This, however, did not lessen the opposition to railroad abuses in the 'seventies. The farmers were among the chief sufferers, and it was the Granger agitation of the midwestern farmers that provided the backbone of the campaign against the railroads.

As a result of this agitation, a number of states, notably Illinois, Iowa, Wisconsin and Minnesota, passed legislation fixing the maximum rates to be charged by the railroads. The first state regulating commissions also appeared at this time. The Granger laws came before the Supreme Court in a series of eight cases, decided in 1876. The court upheld the state's power to regulate, and held that the remedy for unreasonable regulation lay in the political machinery of the government, not in the courts. It was not until 1890, in the first Minnesota rate cases, that the doctrine of "judicial review" of railroad rates appeared,—a doctrine destined to give the courts a large share in directing the policies of railroad regulation. In these cases the Supreme Court decided that the court has a right to review the reasonableness of rates, the basis of the

decision being the Fourteenth Amendment of the Constitution which forbids any state to take property "without due process of law." The idea was that if a regulating commission forced a railroad to keep its rates down to an unreasonably low level, the act would amount to confiscation, or a taking of property "without due process of law."

Prior to this important decision of the Supreme Court, however, the federal government had started on its career of railroad regulation. Since railroad transportation was largely an interstate affair, and since the railroads had resorted to combinations and pooling agreements in order to escape the rigors of cutthroat competition, it had become evident that state regulation could hardly reach the heart of the matter. Accordingly, in 1887, after many proposals and much consideration, the Interstate Commerce Act was passed. The Act required rates to be reasonable, forbade all undue discriminations, and established the Interstate Commerce Commission as an enforcing and interpreting body. The constitutionality of the Act rested on Section 8, Article I of the Constitution, providing that Congress shall have power "to regulate commerce with foreign nations and among the several states and with the Indian tribes."

For many years the Interstate Commerce Commission was practically on trial. Its scanty powers were defined so narrowly by the courts as to give it no chance to come to grips with the railroads. The prohibition of unreasonable rates, so the courts held, did not give the commission power to fix rates for the future. The long- and short-haul clause, forbidding a lower rate for a longer haul than for a shorter haul included within the longer, was held not to apply where the longer haul was competitive and the shorter haul was not. Since the latter situation was the only reason inducing the railroads to make such a discrimination in the first place, the clause was effectually put to sleep.

An enlargement of the commission's powers came with the enactment of the Hepburn Act of 1906, but it was not until the passage of the Mann-Elkins Act in 1910 that the commission acquired the power effectively to limit the earnings of the carriers.

After the passage of these two Acts which put more teeth into the railroad law, the course of regulation took a different turn. The Interstate Commerce Commission has become an active regulating body,—in fact, one of the most important governmental bodies concerned with economic problems. The commission has the power to fix rates on the basis of its own investigations. Furthermore, it can suspend increase of rates proposed by the carriers pending an inquiry in which the carriers are required to show positive reasons why the increases should be allowed. The field of regulation has been extended to include jurisdiction over express and sleeping-car companies, telegraph and telephone companies (so far as concerns their interstate business), pipe lines, and other outside organizations which play an essential part in transportation. Today [in 1928] the advisability of extending to the commission

the power to regulate the interstate traffic of automobile bus lines and truck shipping is being seriously considered.

The transportation situation caused by the necessities of the World War led to important changes in the relations between the government and the railroads. When the United States entered the war, it was found that the customary management of the railroads was unable to cope with the emergency traffic requirements. A serious traffic jam resulted, in spite of the efforts of railway executives to cooperate through a common council of private management. It was inevitable that federal operation should be called upon to straighten out the tangle and force the cooperation necessary to meet the traffic needs of a state of war. The government retained operation of the railroads from January 1918 to March 1920. The controversial story of government operation cannot be told in detail at this point. Suffice it to say that the federal government saw to it that the railroad companies did not suffer financially from the brief period of government operation. The roads were guaranteed payment of an amount equal to the average net operating income of the three years ending June 30, 1917. The privilege of this guarantee was extended for six months after the resumption of private operation.

The railroads were not returned to private operation, however, without a complete airing of the question of government ownership. Many proposals were made, including the famous Plumb Plan advocating (a) public ownership of railroad property, (b) joint operation by representatives of the railroad executives, the railroad workers, and the public. Out of the confusion of plans and arguments came the Transportation Act (or Esch-Cummins Law) of 1920. It returned the railroads to private management under financial terms quite liberal to the railroads, and at the same time ushered in a period of comprehensive regulation by the Interstate Commerce Commission. The "recapture clause" of the Transportation Act furnished an important innovation in the technique of regulation. Railroads earning more than 6 per cent are required to pay half the excess to the commission, to go into a revolving fund. From this fund loans may be made to the carriers (particularly the weaker roads) to meet capital expenditures or to refund securities, or equipment may be purchased and leased to the carriers. The railroad's half of the excess must be put into a reserve fund until the reserve reaches a certain point, after which the carriers may use their half of the excess as they please.

The Transportation Act left the Interstate Commerce Commission with increased powers and responsibilities. Among other things, the commission is required to prepare a plan of consolidations and to encourage and permit consolidations in harmony with the plan. In general, it may be said that the task of regulation tends constantly to enlarge itself as more and more related problems force themselves into view.

It has been asserted by some students of the question that successful railway regulation cannot be accomplished short of complete lodgment

of managerial powers in the hands of the regulating body, and that we are already far along the road toward such a situation. This means, of course, government operation, and the further step from operation to ownership would simply be a matter of exchanging government bonds for the railway securities outstanding. Government ownership, however, is a question beyond the range of this brief article.

* * *

As soon as government regulation of rates to be charged by the railroads and other public utilities was established, there immediately arose the question of determining what were reasonable rates. While there had been fairly general dissatisfaction with the rates prevailing, there was no ready answer to how the rates should be fixed.

In answer to this question there were, however, two fairly clear-cut proposals. One group announced that the value of the service rendered by the utility should be the test of reasonableness in determining rates. Another group claimed the cost of the service to the utility should be the guide. It soon became evident that the first proposal would not do. The value of the service to the shippers was seen to be impossible of exact measurement. The only possible test of it was the rough and ready one of what the shippers could afford to pay. What the shippers could afford to pay, however, had been the guide to rate making employed by the railroads before the days of regulation, and as a standard of reasonableness it was obviously inadequate. If the test were to be what the shippers could afford to pay, any pretence of regulation might as well be abandoned. Accordingly, the criterion of value of service, which amounted to "what the traffic will bear," was abandoned as a single standard of reasonableness for the general level of rates. It is still used, however, as an item for consideration, particularly in apportioning charges among different classes of service, after the general level of rates has been determined by other means.

Cost of service as a standard for rate making led to perplexities of another type. It was agreed that a part of the cost of producing railroad service is interest on property devoted to that service. But such agreement did not settle the question of what rate of interest should be allowed or how the investment in property devoted to railroad service should be computed.

In 1898 the United States Supreme Court, in the famous case of *Smyth vs. Ames*, held that railroad rates must be so adjusted as to yield a "fair return" on a "fair value" and listed many factors to be considered in this connection. Otherwise, the court said, the rates would involve confiscation of private property and offend against the federal Constitution. This decision did not, of course, settle the question of railroad valuation. It paved the way for an enormous volume

of litigation, still in progress, over the question of "fair return" and "fair value."

In this continuing controversy the most important methods of valuation upon which it is proposed to base public utility rates are those which would fix the value of the utilities for rate-making purposes by computing (a) the market value, (b) the cost of reproduction, (c) the original cost, and (d) the prudent investment in property devoted to the public service.

In the subsequent discussion of these valuation plans the proposal to base public utility rates upon the original cost of the property used is not treated separately because most of its merits and weaknesses are covered by the discussion of the prudent investment plan. Those who advocate public utility valuation at original cost contend that public utilities should only be allowed to collect rates to pay a reasonable return upon what they actually cost at the time constructed. Those who advance the prudent investment idea state that the valuation should be determined by the amount that prudent men would have invested to acquire the public utility property at the times when it was acquired.

The relatively unimportant differences between these two ideas can be illustrated by the case of a railroad which constructed several track-age grades before finally getting one that proved satisfactory. Strict adherents of valuation at original cost would hold that the valuation of the grade at present in use should be what it actually cost to build, without reference to the expenditures on earlier and unsuccessful construction. Those favoring prudent investment would make a valuation allowance for expenditures on the unsuccessful grades if they were prudently made. The difference between these methods of valuation can also be illustrated in the case of a telephone company in a large city which has purchased several telephone companies in towns nearby. In computing the valuation of the consolidated company, those advocating strict compliance with original cost would say that the value of the small companies purchased should be based on the original cost of creating them. Application of the prudent investment idea would lead to their valuation at what the managers of the company in the large city, acting prudently, would have paid for them. If the companies in the small towns had been singularly successful the sale price to the larger company might have been substantially larger than the original cost of creating them, and still have been a prudent investment.

In view of the enormous sums involved in the controversy over public utility valuation, the different results that would be obtained by strict application of the original cost idea instead of that of prudent invest-

ment are relatively unimportant. The two ideas do not differ enough in practical importance to warrant separate treatment. The major controversy over public utility valuation is, broadly speaking, that between prudent investment (or original cost) and reproduction cost.

As will be indicated more fully in Chapter XIV devoted to changing price levels, prices today are very much higher than they were in the period from 1895 to 1915—a period during which much of the property now used by public utility companies was acquired. The companies, as a general rule, want the valuation of their properties based upon what it would cost to reproduce them at present high prices. That would authorize them to collect rates to yield a “reasonable” return on a value much higher than that obtained by basing the valuation on the actual cost of the property.

If prices decline sharply for the next twenty years it is reasonably certain that the public utility companies will shift, as they have in the past, from their insistence upon reproduction cost as the proper method of computing the value of their property, and turn to advocacy of the original cost they oppose bitterly now. At the moment, however, the companies are stern in their insistence upon reproduction cost as the proper method of placing a value on their property, and they are carrying a series of cases through the courts in the effort to obtain conclusive judicial approval of that method.

The Interstate Commerce Commission has opposed reproduction cost as the chief method of railroad valuation, and proposed a method which leans in the direction of original cost. A case is at present (1928) pending in the United States Supreme Court which is expected to lead to a conclusive ruling on the subject.

In explaining why the Interstate Commerce Commission does not approve of fixing railroad valuations by computing reproduction cost, Commissioner Joseph Eastman recently stated that “In the case of privately owned railroads and utilities the current reproduction-cost doctrine would probably increase the public burden by upwards of \$30,000,000,000.” In other words, he thinks that if the United States Supreme Court, which controls state court decisions in such matters, should approve the reproduction method of fixing public utility valuations, consumers of public utility service could be legally required to pay rates to yield a “reasonable” rate of return on thirty billion dollars more than at present.

The magnitude of the financial stakes involved in the present controversy over public utility valuation is without precedent. In the following articles it is impossible to give a complete recital of the details of this exceedingly complex controversy. There is merely an

indication of the general considerations involved in the opposing proposals of methods of public utility valuation. First, there is a brief discussion of market value as a rate base. For several years experts thought that this method of valuation had been definitely rejected, but it was recently looked upon favorably by the United States Supreme Court. Then a selection representing a favorable attitude toward reproduction cost will be presented, followed by an attack upon it. And, finally, the idea of prudent investment, which in its essentials is generally held by those opposed to reproduction cost, will be outlined.

MARKET VALUE AS A RATE BASE ⁴

by James O. Bonbright

THE starting point of nearly all discussions of rate-making valuation is the famous dictum of the Supreme Court in *Smyth v. Ames*, to the effect that a public utility is entitled, under ordinary circumstances, to earn a "fair return upon the fair value of that which it employs for the public convenience."

This rule, constantly reiterated by courts and commissions in rate cases, would seem to imply that the only problem in the determination of a rate base is to discover what is the "real value" of the property which is being devoted to public use. But a difficulty arises here. For if "value" is used in the sense of *market value*, or of value to the owners, it would be fallacious to use it as a criterion by which to test the fairness of the earnings. The value of a public utility to its owners is almost entirely dependent on its earning power, which is the very thing to be regulated in the case at bar. The market value of the utility depends largely on what investors think its earning power will be. And it would obviously be absurd to use this market estimate of what the earning *will* be as a measure of what the earnings *should* be.

The clear *impasse* to which the use of market value or earning power as a test of reasonable earnings would lead has now been recognized by all but a few die-hards among the utility advocates. And one might fairly infer that the Supreme Court meant something other than market value when it insisted on the constitutional right of a utility to earn a fair return on the fair value of its property. Nevertheless, it has been pointed out that in their written opinions at least (whatever may be said of the actual decisions), various Supreme Court Justices have by no means cleared their analysis of the earning-power fallacy. For while they have occasionally repudiated it when they have recognized it in its undisguised form, they have frequently allowed it to slip into their apologetics under the mask of some such general and ambiguous concepts as "going-value" or "value of intangibles." The fact, for example, that a

⁴ Adapted from an article in *The Quarterly Journal of Economics*, February, 1926.

certain gas plant has established connections with customers has been said to entitle it to a valuation of something more than the "bare bones" of the physical property, because it is "self-evident" that "there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced." A moment's reflection will expose the presence of the market-value fallacy in this assigned reason for allowing the extra amount. For it is obvious that a gas plant with connections will not be *worth* more (to the owners) than the cost of the "bare bones" of the plant unless the rate-making authorities see fit to let it *become* worth more by the allowance of an extra item in the rate base.

THE CASE FOR COST OF REPRODUCTION AS A RATE BASE⁵

by Frederic G. Dorety

THE function of any cost-of-plant figure in the fixing of rates may be simply illustrated in the case of a railroad built to serve a single shipper, such as a large coal or iron miner or the owner of a large timber tract. It is clear that in any negotiation with the promoter as to rates to be charged by such a railroad, the minimum would be computed at a sum sufficient to include reimbursement for operating expenses and interest at prevailing rates upon the cost of constructing the plant. In other words, rates would have to equal the total cost of producing the service, including the necessary cost of procuring capital.

The illustration, however, affords no test of the issue between original investment and present cost of reproduction, since in this case they are the same. In order to test this issue let us suppose that our mine is in the vicinity of an old railroad, originally constructed years before for the purpose of logging a now exhausted tract of timber. Let us suppose that this old road is in physical condition equal in every respect to a new road and is capable of rendering identical service, but that it was built when prices were low, and at half what a new road would now cost. This illustration brings into clear focus the question whether a fair return should be figured upon the basis of original cost or of present cost of reproduction. It is about as strong a case for the use of the smaller original cost, rather than the larger reproduction cost, as can well be imagined, and yet it is believed that there are many reasons which demonstrate conclusively that even here constitutional principles and economic laws require that rates be fixed at what would be the present cost of duplicating the service, and that they should produce interest upon the present cost of reproduction. Some of these reasons follow:

1. The physical structure and the capacity for service being identical and the available traffic being the same in both cases, nothing but an artificial rate restriction can produce a difference in the economic values of an old road and a new one. Under our constitutional principles, in

⁵ Adapted from an article in the *Harvard Law Review*, December, 1913.

the case of condemnation at least, the amount which an owner can be compelled to accept for the taking of his property cannot be made to depend on when or where he acquired that property or how much it cost him. The same principles would seem to apply when only the use of the property is devoted to the public service. The physical properties and the surrounding conditions of the old road and the new road being identical and the owners devoting identical properties to producing identical service, we know of no constitutional principle which should compel the one to accept a smaller compensation than the other.

2. There is reason to assert that a public utility which occupies its field more or less to the exclusion of other similar companies, and which has taken private property under eminent domain and has received public franchises, should be subjected to the implied obligation of standing ready at all times to furnish its service as cheaply as another company might if permitted to enter the field. It is to be assumed that at any given time another company would be willing to enter the field, if unoccupied, and furnish the service at the present cost thereof, including interest on the present cost of a new plant. The fact that the original company made its investment at a period of high prices and perhaps before the service was justified, would seem to be no reason why it should be permitted to charge prices at a later period in excess of those at which another company would then be willing to enter the field and furnish the service. On the other hand, even though the original company made its investment at a period of low prices, if it makes present charges upon the basis of present cost, there is no hardship upon the public, so long as the rates are no higher than those which would be necessary to induce another company to enter the field.

3. If, in our hypothetical case, the traffic should require the construction of a new road in addition to the one in existence, and costing twice as much, although physically identical, so that there would be two roads, one new and one old, participating in the same service, it is scarcely conceivable that one road could be compelled to furnish service identical with that of the other at half the price. Even if constitutional principles permitted this, economic laws would forbid it.

4. It is believed that the fixing of rates at the present cost of duplicating the service conforms more nearly to the economic principles governing return upon investments in other industries. In case of a manufactured commodity for which there is a healthy demand, requiring the construction of new plants from time to time, the price will, under the play of competitive forces, include interest upon what would be the present necessary investment in plant.

5. The equality or inequality of the return should be measured by its purchasing power rather than by the number of dollars. As construction costs and interest rates increase, the number of dollars and the return to the investor will increase, under our reasoning, but the purchasing power of each dollar will decrease. The reverse is true when construction

costs decrease. Here the return in number of dollars would decrease, but the value of each dollar would be greater. There would be an approximate stabilization of the purchasing power of the investor's return similar to a like tendency existing in other industries.

6. It was suggested by Mr. Justice Brandeis that the use of present reproduction cost as a rate base may subject those making investments during high-price periods to heavy losses due to shrinkage in prices and interest rates, and that on the other hand the use of present reproduction costs during a period of high prices might produce fantastic profits for those who had made investments in low-price periods. This same thing, of course, is true of investments in other industries. This statement merely places railroad investments on a par with others.

7. Many units of the existing property may actually be salable for amounts far in excess of their cost. Many locomotives actually costing approximately twenty-five thousand dollars are salable today for twice that amount. Many tracts of land used in city terminals whose original purchase price was measured in thousands of dollars might today be sold for millions. The cost of leaving these units of property in the public service today is in no wise measured by their original cost. If, by selling today and investing the proceeds in some other way, the owner could secure a given amount of income, his present sacrifice and the present cost of devoting the property to public use are measured by the loss of that income, and not by interest upon the original investment in the property.

This proposed process of determining rates at the cost of duplicating the service suggests that if the service could be duplicated by means of a more efficient or a less expensive plant, both the capital cost factor and the operating expense factor in the rate should be limited to the necessities of such a substitute plant. But this does not affect the proposition that rates should be based upon the cost of duplicating the service, and that, in determining the capital cost factor, present rather than original construction cost should be computed. In the absence of an affirmative showing that equally efficient service would be rendered by a more economical substitute, the presumption should be that the existing plant would have to be reproduced.

INCONSISTENCIES IN REPRODUCTION COST AS A RATE BASE ⁶

by John Maurice Clark

THE development of the conception of reproduction cost has gone through two main phases. The first was the celebration of hypothetical conditions under which the imaginary reconstruction of the property was to be carried out. This was done largely by engineers and from the

⁶ Adapted from *Social Control of Business*, the University of Chicago Press, 1926, pages 352-358.

utility standpoint. The assumption appeared to be that reproduction cost was an independent standard of value and not a mere check on particular abuses of original cost, and the logic was that of discovering what it would cost literally to reproduce the properties, rather than the logic of a search for evidence bearing on the just return to be allowed to owners who would never have any actual occasion to reproduce their properties. The second phase came with the settling of particular issues involved in this hypothesis, such as whether or not to make an allowance for "going concern value," and so forth.

The issues may appear more clearly if we examine the specific items claimed as elements of value under the reproduction-cost hypothesis. One of these was an allowance for paving over mains, where the mains had been laid before the streets were paved. On the subsequent paving of the streets by the city, the cost of cutting and relaying the pavement becomes a literal part of the imaginary reconstruction of the property. The claim is utterly logical, granting the assumptions. The only flaw is that these assumptions have nothing to do with the finding of a reasonable reward for the rendering of the service. They calmly put upon the public the burden of an order of procedure in building streets which is reprehensibly wasteful and one which no administration in its senses would follow or allow to be followed. And even if it were a fairly frequent practice to pave the streets first, there is no sufficient reason why a community which is able to arrange for the more efficient method of installation should pay the cost of the less efficient one, while the company pockets the difference. This claim has no easily discernible competitive analogy and cannot be defended on the score of the forces which govern normal competitive values. And it has, quite properly, been disallowed, in spite of the fact that it is an element in the literal process of imaginary reconstruction.

Another claim arises in valuing land. According to the hypothesis advocated by the utilities, the company reconstructing the plant has to acquire land by condemnation, paying the present market value of surrounding lands, together with consequential damages and other costs of condemnation, bringing the total up to several times the market value of the surrounding lands. Justice Hughes rejected this claim, so far as railroads are concerned, in the Minnesota Rate case. He pointed out that the surrounding lands have their value because the railroad is there, and criticized the whole process of imagining the road gone and then paying for the lands at the value the road's presence gives them, plus multiples for damages to values which would never exist if the road were destroyed. This, he said, "is mere conjecture" as to matters "wholly beyond the reach of any process of rational determination." The court was willing, in this case, to appraise land at the market value of adjoining land as a way of giving the companies a share in the increased values they had caused, but not, apparently, because the reproduction hypothesis logically required it.

This whole difficulty is thrown into relief by the further question whether allowance should be made for the cost of buildings which might be supposed to occupy the land. This has not been done, even though buildings had to be wrecked in the original construction. This outlay is typically less than the subsequent increase in the value of the land itself, and certainly the exact buildings which were wrecked when a railroad was built forty years ago or more have no logical relation to the present cost of reproduction. And if hypothetical present buildings are to be considered, we would have such absurdities to deal with as the cost of acquiring and wrecking a hypothetical fifteen-story hotel, hypothetically built for the purpose on the site actually occupied by a one-story car-barn in the heart of New York City.

The logical difficulties of the hypothesis are further illustrated by the question whether trees, embankments, streams, quicksands, and other such conditions should be imagined as they were when the property was actually built, or as they are now. Mr. Alvord argues for original conditions, while the Interstate Commerce Commission has used present conditions in its valuation work, the result being favorable to the companies in some cases and unfavorable in others, and the net balance unfavorable, in the opinion of Professor Vanderblue. The rule of original conditions would eliminate paving over mains and hypothetical buildings, but it would include an allowance for the added cost due to piecemeal construction. Reproduction under present, man-made conditions is often difficult to imagine, but it is a still greater strain on the imagination to conceive a railroad cutting its way through virgin forests, the land under which is worth the price of highly-developed farm land, into a large terminal city which is only there to serve the people who are living where the virgin forests are supposed to be, and where the road must pay the high prices for land to which the actual dense settlement gives rise. This gives the company the benefit, at the public's expense, of two kinds of difficulty, one of which an actual road might have to meet, but never both, since they could not possibly occur together. One excludes the other.

Many other points might be considered, but these will serve to indicate the inextricable tangles into which the logic of reproduction cost unavoidably falls when applied to natural monopolies. It would seem clear that the useful thing to do is not to make a complete and literal appraisal on this basis and then try to decide what weight the result as a whole should have in determining fair value, but rather, on the basis of present experience with the issues raised, to decide what features of reproduction cost have a bearing on fair value, and not to waste time and money canvassing other features. This would be more in character with the mental picture which must have been in the minds of the members of the Supreme Court when it laid down the "rule" of *Smyth v. Ames*. They could not have foreseen all the irrelevant intricacies which the reproduction hypothesis later developed, but had in mind certain features which seemed to have some claim to relevance.

PRUDENT INVESTMENT AS A RATE BASE ⁷

by Donald R. Richberg

THE investment made in any enterprise is a fact which can be proved by facts. It is reality concerning which there can be little dispute. If books are honestly kept according to fair and intelligent accounting methods, the facts regarding investment and gross income and operating expense and net income are all recorded and proved in money terms. There would be no difficulty in determining the investment in the railroads upon which the owners are entitled to earn a fair return in the rates charged if honest books of accounting had been maintained. Such books of account have not been maintained, for the very purpose of concealing the facts and preventing a ready ascertainment of what is a fair return. If such books of account had been kept and were now available, there would be a complete record showing the amount of money invested from time to time in the construction of the existing road, the charges made for the services rendered, and the amount of return received by the investors from time to time upon their investments. It would be easy to ascertain the extent of capital contributions made by private investors directly, or made by them indirectly out of rates collected from the public, or made directly by the public in the form of donations. Obsolete property when replaced would be accounted for by the investment of new capital or reserves in the property substituted. An honest and carefully kept investment account would show just the amount of money upon which the stockholders were entitled to earn a return.

It is absolutely inconceivable that, if such a real basis for determining a fair profit or a fair return upon the capital invested, were available, there could be any extended controversy between the public and the railroad owners over the amount of that fair return. If the investment so revealed in the books were represented by honest securities and the railroads had been soundly financed, there might be expected to be outstanding, representing 50 per cent of the investment, bonds bearing between 4 per cent and 5 per cent interest, and 50 per cent in stock. The allowance of a 6-per-cent return upon the entire investment would permit earnings of 7 to 8 per cent on the stock. Would there be any reasonable contention that at the present time the stockholders were unfairly treated if they were permitted to earn such a return? The market quotations of well-secured, seasoned and safe stocks and bonds, as revealed daily in the newspapers, show plainly that the owners of the railroads would have little to complain of if they were permitted earnings upon this basis.

But books not only have not been kept; books have been destroyed. Books not only have not been kept honestly; they have been so dis-

⁷ Adapted from a reply brief in argument before the Interstate Commerce Commission, Excess Income of St. Louis and O'Fallon Railway Company, 1926.

honestly kept that their unreliability as evidence is notorious. Whereupon the railroad owners seek to capitalize the inefficiencies and dishonesties of management; they seek to utilize the absence of clear and real evidence of the amount of net earnings to which they should be fairly entitled; and they seek to substitute for the actual value of their properties (which actual value should be capitalization of a reasonable earning power based upon investment) a wholly theoretical value, something which is not a fact, but which is a claim based on theoretical assumptions. As evidence of this value they bring forward estimates of cost. But even actual costs would be facts, and facts cannot be used to prove an assumed value not based on facts. So reproduction costs are utilized; theoretical costs are used to prove a theoretical value. Through these methods courts and commissions, seeking to determine a fair price for public utility service, are led away from reality. They are taken away from the desks of accountants where figures of investment represent facts and give evidence of real earning capacity and real value. They are led out into a land of theory where imaginative engineers conduct them along the lines of railroads which they imagine do *not* exist, through great cities which they imagine do exist, although the railroads which are necessary to their life are imagined *not* to exist. They produce computations of dream values resulting from the addition and subtraction and multiplication of theoretical costs and then, at the end of this journey into cloudland, they bring forth a claim that a railroad has a value which cannot be proved by any known test of value; and on the basis of this value illusion they claim the right to charge rates which, if the traffic would bear them, would yield at least 25 per cent a year profit on the cash investment of the stockholders.

Is it not time to cease theoretical disputations over the various concepts of value? Is it not time to realize that, if we had before us a fair statement of the prudent investment made and now used in furnishing transportation service, the amount of that investment would be the fair value of the property of the private owners, because upon that amount and that amount alone would they be justly entitled to earn a fair return?

When the Interstate Commerce Commission is directed, either by Congress or the courts, to ascertain the fair value of railroad property, it is to be assumed that both Congress and the courts know that the fair value of property is the resultant of a fair earning power, and that the Commission must therefore first ascertain the fair earning power of these properties. Since the books of account which would provide a mathematical statement of the investment are lacking, it is necessary for the Commission to use various devices—estimates of original cost, estimates of reproduction cost, restatements of money outlay, etc.—which will aid the Commission in its search for the amount of actual investment prudently made and remaining in the property. This investment, after all the evidentiary costs are given due consideration, must be utilized as the principal factor in determining the so-called “fair value” of the property;

that is, the capitalization of its fair earning power. The fair earning power is not to be determined by the highest possible price which could be exacted for the use of the property—a monopoly price. The fair value is not to be determined as a monopoly value. Essentially the price to be determined is a competitive price, a price at which the public itself would furnish the service, since the public utility operators have obtained authority to furnish this service on the implied condition that they will meet this competitive price.

Investment is a reality. A fair earning power based upon investment is a reality. A fair value which is the capitalization of a fair earning power is a reality. Original costs, whether proved by books or by estimates, are real.

Reproduction costs are theories; and values based on such unreal evidence are illusions. Through the use of the realities of original cost and investment, the Commission may find real values and in the end may achieve real justice.

* * *

Certain students of the valuation problem have stated confidently that the situation would be greatly clarified if a sharp distinction were to be drawn between valuation on investments made in the past and on investments that are to be made in the future. Some sort of compromise is necessary, say these writers, in treating investments which have already been made "in good faith" and in expectation of speculative gains. But this is no reason, runs the argument, why future additions to the property of public service companies should not be valued on the prudent investment basis, with all account books closely scrutinized. The investors could be warned in advance that they are furnishing capital for purposes of public service, and may expect a return in proportion to the slight risk involved but may not expect to receive either speculative gains or speculative losses. A brief outline of this view follows.

A FRESH START ON VALUATION NEEDED ⁸

by Robert H. Whitten

IF PUBLIC service industries were not already long established and our problem was that of devising a general policy that would serve as an adequate but not excessive inducement to obtain the establishment of the desired services, it seems clear that the actual and necessary outlay would be taken as the normal capital cost upon which a fair rate of return would be allowed.

But our public service industries have for the most part been long established. A vested right to increments, especially in land and values,

⁸ Adapted from an article in the *Harvard Law Review*, March, 1914.

is claimed. In the past, theories of public control have been but vaguely formulated and very imperfectly applied. Consequently, many believe that the cost-of-reproduction method of determining capital cost or fair value is essential as a starting point—but for the future, fluctuations in the price of land, labor and materials should result neither in an unearned increment nor an unmerited loss to the investor. What is equitable and just as regards the past depends on the nature of the implied understanding between the public at the time these investments were made. It is probably correct to say that no more definite understanding could have been implied than that the service would be supplied at the cost of production. Cost of production here means the actual cost of producing the service, including interest and normal profit, but excluding monopoly gains. Whether interest and normal profit were to be based on actual cost or cost of reproduction was probably seldom considered, and there has certainly been no authoritative statement that could justify a conclusion that either the one or the other method would prevail.

The discussion in this chapter has been devoted primarily to the regulation of railroads because public regulation has been longer sustained and more fully developed in this than in other public utilities. It should not be inferred from this emphasis that railroad regulation presents the only problem of public control. Much the same difficulties appear elsewhere in connection with a wide variety of local and regional utility companies providing gas and electricity, water, telephone service, automobile bus service, public storage, water transportation, *et cetera*. In each case there is a more or less continuing conflict between the companies which would like to have the privilege of charging "what the traffic will bear" and public regulating agencies, designed to insist on adequate service at reasonable rates.

In the case of a number of public utilities, other than railroads, the problem involved is one of national proportions. This is rapidly becoming true, if it is not already so, with respect to the electric power industry. The companies which generate and transmit electric power are now in process of combination and expansion, leading in the direction of what is known as "superpower" and "Giant Power." The electric utility companies are at present regulated by state commissions. Thus, as far as regulation goes, they are in much the same position as the railroads before the passage of the Interstate Commerce Act. But the growing scale of operation where no heed is paid to state boundary lines, and the interlocking character of corporate control suggest that a more comprehensive scheme of regulation may become

necessary. The nature of the problem involved is lightly touched upon in the statements below.

CONSOLIDATION OF ELECTRIC POWER COMPANIES⁹

by John L. Stewart

CONSOLIDATION is taking place rapidly in that branch of the public utility service which is engaged in the generation, transmission, and distribution of electric current. The combination of electric companies is destined to exert a powerful influence upon social life, and forms an essential part of one of the most significant movements in any private or public enterprise today—namely, the integration of electric generating, transmission, and distribution facilities, or what is more commonly known as “Giant Power” development. From a public standpoint, the advantages of integration of electric companies will be making a cheaper and more convenient form of power more generally available for homes, industries, railroads, and farms. This will produce salutary effect in urban and rural life and will result in revolutionary changes in America’s most important and basic occupation—agriculture.

At present, however, these combinations, privately initiated, are based not upon the best interests of the state as a whole, but are organized according to the interests of the dominant company back of the movement. The Public Service Commission of Pennsylvania is endeavoring to view combinations of electric utilities from a state and interstate point of view, and is endeavoring to preserve public interests and at the same time encourage legitimate business expansion. The Commission fully appreciates the advantages and desirability of combination in this field, and its plans are predicated upon this idea; but it realizes also that the consolidations must be subjected to careful investigation with a view to determining the economic and general social consequences.

Combinations of electric companies are not unlike those of railroads. The first groupings are of connecting utilities or of those serving adjacent communities which frequently constitute a single economic section of the state. There follow consolidations of large units, with a view to tying together generating stations and transmission lines and thus effecting a more unified service. The extent to which this form of combination might be developed is difficult to forecast, but it is evident that the end has not been reached.

That combinations in the production and distribution of electrical energy are being effected at an unprecedented rate, and are assuming large proportions, is evidenced monthly by applications which come before the Public Service Commission for the incorporation, merger, consolidation and purchase of a controlling interest in capital stock of electric companies.

⁹ From “Giant Power,” the Report of the Giant Power Survey Board to the General Assembly of Pennsylvania, 1925, pages 348-351.

REGULATION OF ELECTRIC POWER COMPANIES ¹⁰

by *Edward W. Bemis*

GIANT Power assumes that electric generating stations are to be connected by transmission lines of sufficient capacity to permit the flow of current wherever needed, and involves, on a comprehensive scale, the integration of facilities such as is now in a minor degree found in the interconnection of power stations of the Edison and other companies of Boston, New York, Philadelphia, Pittsburgh, Cleveland, Detroit, Chicago, St. Louis and our other large cities.

Both experience and theory, therefore, point to: (1) public regulation—under which nearly all large American cities are now operating—or (2) independent publicly-owned plants combined with public regulation, as in Cleveland and Seattle, or complete public ownership and operation, as in the province of Ontario.

The necessary conditions for the success or ultimate public approval of the public regulation of Giant Power are:

(1) Limitation of the profits to a fair return on the actual cost less depreciation of the property in use at each period of rate adjustment.

(2) Sale of the current at the same price, considering amount and "load factor," to every distributing company, whether publicly or privately owned, within reach of the transmission lines, or at the state line to any company transmitting to another state.

(3) High character, intelligence, and an eye single to the public interest on the part of all regulating bodies and courts that may be called upon to pass on regulation matters.

Whether state charters and other forms of state regulation can legally tie down a Giant Power company to a rate base fixed by prudent honest investment, less depreciation, is a question of vital importance which may be differently answered in different states. Furthermore, unless a state commission can and will regulate the price at the state line for those Giant Power companies transmitting beyond the state, the same serious trouble will be experienced as in Ohio and Pennsylvania, where those states are halted in securing a reasonable price for natural gas. This is because producing companies, or more actually drilling, gathering and pumping companies, in West Virginia are permitted by that state to sell natural gas at the state line at much more than a fair return on the actual cost, less depreciation, of the fields, wells, pipe lines, pumping stations, etc., in the producing state.

Just as the national government has assumed control of railroads and oil pipe lines crossing state lines, so in spite of the present reaction against the increase of Federal functions, our national government may have to assume control of natural gas and electric transmission lines crossing state boundaries.

¹⁰ Reprinted from *The Annals of the American Academy of Political and Social Science*, Philadelphia, Pa., March, 1925, Vol. CXVIII, No. 207, pages 176-177.

Apparently the moment electric current flows over state boundaries and is sold at wholesale, the Federal authority is the only authority. Under the decision in the *Kansas City Gas case*, May 1924, the U. S. Supreme Court has held that in the absence of Federal regulation such interstate business remains unregulated.

QUESTIONS

1. What other industries bear a general likeness to the railroads as regards the nature of competition and the results flowing from competition?
2. "Review by the courts of the reasonableness of railroad rates established by regulating commissions has undoubtedly been a hindrance to regulation." Do you agree? If so, do you think this hindrance is justified by dictates of caution, or by the necessity of affording a guarantee of justice to railroad investors beyond the guarantee which might be given by the commissions and legislatures? If public opinion were to agree that the hindrance is not so justified, how could the doctrine of "judicial review" be eliminated?
3. The B. and X. Railroad Company required a small triangle of land near Rochester, N. Y., for the purpose of constructing a grade crossing. The land amounted to one-fifth of an acre, and the value of land for farming purposes in that vicinity was worth about \$100 per acre. The railroad paid \$20 to Mr. J., the owner, for the triangle of land. Some years later, when the railroad properties were being evaluated, it appeared that the railroad had increased the market value of the rest of Mr. J.'s land to \$900 per acre. Should the railroad be allowed an item of valuation to cover the value of the triangle of land at \$900 per acre? What would be the decision if reproduction cost were used as a rate base? If original cost were used as a rate base?
4. An employee of an electric power company in California made an important invention in the field of power distribution. The company paid the employee \$4,400 for the device and retained exclusive use of it. Later on, the invention was considered so important that the company claimed a valuation on it of \$2,000,000. Should the item be allowed by the regulating commission? Assume that the company had a patent on the invention, and leased the device to other concerns at a rental of \$3,000 per year. How should this item of rental be classified in the books of the company? Should there be a separate valuation item of \$2,000,000 or one of \$4,400?
5. Does the preceding question raise any problem concerning the right of the public to share in the benefits of a rapidly advancing technique in the electrical industry? Should the regulating com-

missions and the courts take account of this problem? Why is it a problem that is often overlooked?

6. The *Wall Street Journal* of August 2, 1926, contained an editorial which said: "The 'value' of railroad property is no basis for rate making. There have been many suggestions and many legislative attempts to fix an arbitrary basis for rates by limiting earnings. Every single one of these has failed. The proper basis is just as clear today as it was thirty years ago. It is what the traffic will bear." Appraise this editorial as regards the merit of the suggestion, and its practicability.
7. At the present writing, the railroads are making a determined effort to get the reproduction-cost theory accepted as the standard rate base. It is estimated that such a plan would mean an increase of 12 billions of dollars over the present valuation. What would be your attitude toward this plan if you were a heavy investor in railroad securities? If you were a manufacturer who shipped large quantities of goods over the railways? If you were a large owner of farm lands in the middle west?
8. If the general level of prices started on a long period of steady decline, what would be the effect on the campaign of the railroads mentioned above?
9. Assume that the railroads asked for a legal valuation and rate of return on that valuation which would yield an income greater than the income which could actually be obtained from the patrons of the railroads on a basis of "what the traffic will bear." Would such a valuation be too high? Would it have any bearing on the rate level?
10. Assume that the Interstate Commerce Commission imposed a valuation on the railroads so strict that many people who were thinking of putting their money into railroad investments decided to invest elsewhere. With no other data at hand, would you decide that the valuation was too low?
11. Outline a situation in which you think it might be justifiable for a railroad to charge more for hauling goods 100 miles than for hauling them 200 miles, the shorter haul being included within the longer. In making your answer state clearly what point of view you are taking (for example, that of the railroad, the consumers at the 100-mile point, the federal government, etc.). If you see no justification at all, explain why.
12. Outline the charges against the railroads contained in the Cullom report which you think can be directly attributed to the fact that a large proportion of the costs in the railroad industry are "overhead costs."

SPECIFIC PRICE SITUATIONS

THIS chapter will provide material for the study of specific price situations. The various price-determining forces discussed in previous chapters will thus be brought under closer observation. "Future" prices as well as cash prices will be discussed.

The samples of cash prices will include those of:

- (1) Porterhouse steak.
- (2) Cotton.
- (3) Sugar.
- (4) Electric light bulbs.
- (5) Electricity.
- (6) Crude oil.

"Future" prices will be considered with reference to:

- (1) What "future" prices are.
- (2) The practice of hedging.
- (3) The effects on price movements.

THE last five chapters have constituted a partial analysis of the price system. They have been concerned with supply and demand as an explanation of price; with the competitive mechanism through which supply and demand factors are sometimes said to work; with some current aspects of competition; and finally with tariffs, private monopoly, and government control as factors having a bearing upon price. Some of the material presented has been general rather than specific in its application. Furthermore, straight sailing has often been impeded by swirling currents of controversy. This has necessarily been so because prices, as they are actually adjusted in the workaday world, are the center of a clash of conflicting economic interests.

Taking stock of our position, it seems that we have as a net result a variety of possible price explanations. Unfortunately there is no mathematical instrument to measure the relative importance of these explanations in accounting for any particular price. Perhaps a wise course under such circumstances is to look closely at some actual price situations in order to see what forces seem to be at work in each particular instance. The prices of a few commodities are treated in some detail in this chapter. In some cases, explanations of how the prices are determined are advanced; in others, little more than the crude data with which to formulate an explanation are presented. In all cases, however, there is enough material on actual prices to bring into

focus the various price-determining factors which have been discussed in previous chapters and to permit of some appraisal of their relative importance in the price situations presented.

In the first selection a specific price—that of a porterhouse steak—is justified by an analysis of the various materials and services contributing to its preparation for final consumption.

THE PRICE OF A PORTERHOUSE ¹

by F. S. Tisdale

WADSWORTH PAYNE took his family to a restaurant for the evening meal.

"A porterhouse steak," he pronounced the word with relish, "large enough for three of us."

The suave Latin waiter returned in due time with the porterhouse. He displayed it with an air. A noble steak it was.

As they finished, Wadsworth Payne leaned back and beamed at his family through his cigarette smoke. A great content was upon his soul. It was a good world.

This beatific mood was shattered by the arrival of the check. As Wadsworth Payne studied that document his mop of hair bristled.

"Where's the manager?" he demanded of the Latin. "Get him—bring him here."

The manager came.

"Mr. Gilsworth," began Wadsworth Payne, "I have no desire to be disagreeable. But as a consumer I have certain rights. Here"—he tapped a government booklet—"I have evidence that the best cattle are selling for 11 cents a pound. By what right, then, do you charge \$2.50 for a porterhouse steak?"

The manager sighed. "I don't charge \$2.50 for a porterhouse steak," he said.

"But here it is on my check. The figures are distinct."

"Yes," sighed the manager, "the check says \$2.50. But if we itemized all that it includes besides steak you'd have a list as long as your leg. This room covers a lot of ground. That means high rent. Some of the decorations are gold leaf; the wall panels are French brocade. That costs money. I pay over \$200 a week to that orchestra back of the palms. This linen, china and silver is all expensive. The florist didn't give me the carnations in that vase. Somebody was paid for the parsley and lemon slices. My Swiss chef, his assistant, the waiters, the bus boys—they won't work for nothing. These are just some of the invisible items you ate here besides the piece of meat. And they are all included in the \$2.50 charged for the porterhouse."

"Well," contended Payne, "there's room for a juicy profit between \$2.50 and 11 cents."

¹ Adapted from "The Price of a Porterhouse," reprinted from *Nation's Business*, August, 1925.

"Mr. Payne," said the manager, "that \$2.50 porterhouse weighed, say, two pounds. The meat cost me \$1.00, or 50 cents a pound. There is a difference of \$1.50 in what I pay and what I charge, and it scarcely covers the expenses I have told you about. It's not right for me to pay \$1.00 for porterhouse from an 11-cent steer. I'm at the mercy of the butcher."

Wadsworth Payne thought of all this after he left the restaurant. His blood was up. Next day he started out to track down the culprit. In this determination he went to see the butcher who had sold the steak.

"Robber," he said looking the butcher squarely in the eye.

"So?" said the butcher, after he had heard Payne's story. "We are robbers because we sell porterhouse at 50 cents a pound when the farmer gets 11 cents for the steer. You're not the first to raise that complaint. There have been so many that we worked out some explanations."

The butcher threw open the door of a huge refrigerator and pointed inside with the cleaver. "There's how we buy meat. That's half a steer's carcass. We call it a side. The best beef there is—a shorthorn fattened on Iowa corn. The side weighs 367 pounds and we paid the packer 16¾ cents for it. As you say, the farmer got 11 cents a pound from the packer for the whole critter.

"Now, your porterhouse is right here in the loin—22 pounds of it out of the 367. A lot of things there besides porterhouse. Shrinkage, for instance. One pound and nine ounces evaporates—disappears into the air.

"And that's not the only thing we lose on. About 29 pounds of that side is bone. You don't get porterhouse prices for it. The bone costs 16¾ cents along with the rest—we sell it for 8 cents. We trim 38 pounds of fat and suet from the meat. That costs 16¾ cents, too—we sell it for 14 cents. The porterhouse and the other fine cuts have to sell for enough to make up such losses. At 50 cents a pound the restaurant paid us \$1 for the porterhouse you ate. Here's where that dollar went to."

Butcher's profit on two pounds of porterhouse steak sold to restaurant at 50 cents a pound, or \$1.00—

Paid to packer	\$0.768
Wages .....	.113
Rent .....	.026
Refrigeration .....	.001
Wrapping .....	.008
Depreciation of fixtures .....	.005
Light, heat, power .....	.002
Laundry, insurance, delivery, local taxes, bad debts, office force, etc. ....	.049

Total Cost	\$0.972
Butcher's net profit .....	.028

Total received for steak\$1.000

Wadsworth Payne studied the figures perplexedly. "Well," he said, doggedly, "somebody is robbing us."

"Take another look at the figures," said the butcher. "What's the biggest item?"

"Why, the \$0.768 paid to the packer."

The butcher gazed about the store to see if anyone was listening. Then he leaned across his scarred block and whispered an awful name. "The Beef Trust!"

Payne headed for the stockyards. On the street car he ran over his notes, and made straight for a plant owned by one of the great Chicago packers. He got to the manager when he explained what he wanted, and told about the 11-cent steer and the \$2.50 porterhouse. Yes, the indictment was true.

"That's all I want to know," said Payne, as he reached for his hat.

The packer's hand was quicker. It grabbed the hat and held it.

"No, Mr. Payne," said he, "there are a lot of other things you must know. If the Lord had made 1,300-pound steers that were 1,300 pounds of porterhouse, you might have a real grievance. But the critter has a lot of bones to keep him from folding up when he walks and a lot of internal machinery to take care of his digestion. We don't sell porterhouse, we sell sides such as you saw at the butcher's. That 1,300-pound steer contains 734 pounds of meat, which includes 44 pounds of porterhouse. Other things like tongue, heart, liver, etc., bring the total of edibles to 781 pounds. Nonedible by-products come to 134 pounds.

"There is a total loss in evaporation, contents of the animal's stomach, etc., of 385 pounds. About 30 per cent of the entire animal, that loss. We pay 11 cents a pound for it. Besides the total loss, many parts of the steer sell for less than 11 cents. No one ever asks how we sell shank for 6 cents or hanging tenderloin for 7 cents.

"Now we have 30 per cent of this 1,300-pound steer that is a total loss. The by-products average less than the 11 cents we pay per pound; the cheaper cuts also average under what they cost. There remains the better grade of meat—including your porterhouse—which must be sold for enough to absorb the losses and make a profit on the entire animal.

"Here's how the average worked out with one of the big packers last year:

Average price paid farmer for steer	\$60.08
All expenses, including freight	12.63
<hr/>	
Total expended by packer	\$72.71
Packer received for meat	\$63.11
Net returns from by-products including hides	11.55
<hr/>	
Total received by packer	\$74.66
Packer's average profit per head before charging interest	\$ 1.95

Payne had been examining that item of \$12.63 for expenses. He wanted to know what was in it.

"It would take a long time," said the manager, "to tell you everything that includes. Every hand that touches the meat must have wages; every agency that moves it must be paid for the services. A few things in that item are: at the packing plant—feed for the steer, pay for something like 100,000 employees, refrigeration, light, heat and power, trucking to the freight station; freight to the branch plant; at the branch plant—hauling from the freight station, refrigeration, light, heat, power, more handling and hauling to the butcher. When all these things are paid for, there is left an average profit of \$1.95 per head—or a little more than a third of a cent of a pound on beef. The average profit of the four biggest packers in 1923 was \$0.0156 on the dollar.

"My dear sir," interrupted Wadsworth Payne, with some heat, "you say you make around a third of a cent per pound on beef; yet the company paid \$12,000,000 in dividends."

"Exactly. We prosper on a profit that would starve other industries. We do it by working our dollars overtime. Meat deteriorates; you've got to sell it fast. In that way our dollar earns its third of a cent profit not once, but from five to seven times in a year. At the highest turnover that dollar would earn not \$0.0033½, but \$0.0233½. That's what produces the \$12,000,000 in dividends. The same principle works with the butcher—he will sell out his stock every 3.2 to 4.4 days. He can also make a respectable profit on a very small margin."

Those are some of the things Wadsworth Payne learned from the packer. He was very thoughtful as he rode home in the street car. A complicated civilization had created a complicated system of distribution. He might beat it by getting a rifle and hunting for game; or he could buy cattle and slaughter them himself.

As to that \$2.50 steak—it appeared that when a person went to a luxurious restaurant, he had to pay for the luxury as well as the meat.

In the preceding article the explanation of prices was made by analyzing cost of production. It is not always possible to get complete cost figures—those in the last reading were greatly simplified—and even if it were always possible only one part of the price situation would be explained. Demand would still remain to be accounted for. What, it might be asked, would have been the price of the steak if the chef had been negligent and allowed it to scorch, or if patronage had suddenly been withdrawn from the restaurant because a murder had been committed there? In such an event a price analysis like the one that has just been made would lose much of its significance. A

cost of production analysis would also be far from accurate in the case of cotton, when an unusually large crop drives prices far below the cost of production. The two statements of cotton prices show how this happened in 1926.

COTTON PRICES ²

by W. M. Jardine

THE cotton crop of 1926 was 18,000,000 bales, caused partly by increased acreage, but largely by favorable weather conditions. This was more than about five million bales above the average of the preceding three years. The resulting drop in the price of cotton is shown by the following figures:

Month and year	Average farm price in cents per pound	Estimated marketings by farmers in per cent of total crop
1926		
August	16.1	3
September	16.8	12
October	11.7	20
November	11.0	20
December	10.0	14
1927		
January	10.6	7
February	11.5	5
March	12.5	5
April	12.3	4
May	13.9	4
June	14.8	3
July	15.5	3
Weighted average	12.3	100 (=18,000,000 bales)

As shown by these figures, approximately sixty-one per cent—10,980,000 bales—of the 1926 crop was marketed from October to January at an average price of slightly less than 11 cents. Every one acquainted with

² From an article in the *Oklahoma Stockman and Farmer*, November 1, 1927.

the cotton problem knows that a large number of farmers had to sell at that time and price. Their creditors demanded payments.

With the dumping of that tremendous crop, the price could not but fall. Not only did the farmer give away his surplus but he in fact paid for the privilege of giving it away. In other words, he got less for 18,000,000 bales than he would have got for a small crop.

AVERAGE FARM PRICE OF COTTON AND COST OF PRODUCTION ³ (1923-1926)

Year	Average price received by all producers ^a	Average net cost of production ^b
	<i>Cents</i>	<i>Cents</i>
1923	28.7	22
1924	22.9	18
1925	19.6	18
1926	12.5	15-16

^a Weighted average of farm prices.

^b Questionnaire returns from farmers.

In the case of cotton prices the tariff is a negligible factor. That is because most of the world's supply of cotton is produced in the United States, from which large quantities of all except a few varieties of long staple cotton are exported. There is no tariff on short staple cotton, but if the tariff were a dollar a pound it would make no difference (unless there should be an almost complete crop failure in this country) because this country has a surplus above its domestic requirements.

In the case of another agricultural commodity, sugar, the situation is quite different. Not enough sugar is produced in the United States to meet domestic requirements, and consequently there is occasion to import large amounts of that commodity. In this situation it is possible to protect sugar producers in the United States from the full force of the competition of foreign sugar producers by levying a tariff on sugar. In the following table figures relating to Cuban sugar prices are presented which may throw light on the possible significance of the tariff as a factor bearing on certain prices in this country.

³ A table prepared by the Bureau of Agricultural Economics, U. S. Department of Agriculture, 1927.

THE PRICE OF SUGAR ⁴CUBAN SUGAR PRICES ^a

(96° sugar)

Calendar years	Cuban sugar at New York (cost and freight price) (cents)	New York price of Cuban sugar duty paid ^b (cents)	Promedio price, Havana ^c (cents)	Difference between promedio price at Havana and New York cost and freight price ^d (cents)	Average freight rates to New York and Philadelphia ^e from Cuba (cents per 100 lbs.)
1923.....	5.240	7.020	4.98	.260	16½
1924.....	4.186	5.964	3.85	.336	16½
1925.....	2.562	4.349	2.29	.272	14½
1926.....	2.568	4.333	2.30	.268	19½

^a From Willett & Gray's *Weekly Statistical Sugar Trade Journal*. Weekly quotations averaged.

^b United States import duty on 96° Cuban sugar is 1.7648¢ per pound under Tariff Act of 1922.

^c Cuban promedio price in public warehouses at Havana. Figures from *Industria Azucarera* and *Revista Azucarera*. Quotations averaged.

^d The differences between the figures in this column and the freight rates shown in the next column are presumably due to storage and handling charges.

^e North coast route rates averaged.

NOTE:—The promedio price of Cuban sugar is the average price of raw sugar at the mills in Cuba or in public warehouses at ports of shipment. The word "promedio" signifies average.

Enterprises engaged in the generation and transmission of electric power for general consumption are classed as "public utilities" and subjected to degrees of price regulation which vary in different states. Enterprises engaged in producing and distributing electric light bulbs, essential to the use of electricity for lighting, are private enterprises subject to no government regulation of prices. In the following selections there are samples of prices of electric light bulbs and of electricity, together with suggestions as to the way these prices are determined.

⁴ Prepared by the U. S. Tariff Commission. By courtesy of Edward P. Costigan, former member of the Commission.

THE PRICE OF ELECTRIC LIGHT BULBS ⁵

STANDARD LINE

INSIDE FROST MAZDA LAMPS

110, 115, 120 Volts

Prices, Effective April 1, 1927

Watts	List price
25	\$.23
40 .....	.23
50 .....	.25
60 .....	.25
100 .....	.40

THE MANUFACTURE OF ELECTRIC LIGHT BULBS ⁶

THE carbon filament, the light-giving element of the incandescent electric lamps, was invented and came into use about 1880.

In 1904, an improved carbon filament, known as the "metalized" carbon filament, was invented.

Then the tantalum filament lamp was introduced. It reduced the consumption of current by about one-third, as compared with the ordinary standard carbon filament lamp, but it was not a satisfactory lamp for use on alternating current circuits. The original patents on the tantalum filament lamp have now expired.

Thereafter, a tungsten filament incandescent electric lamp was introduced into this country, and has since been developed to such an extent that it consumes only about one-third of the current consumed by the standard carbon lamp in its best form, and less than one-half of that consumed by the "metalized" carbon lamp for the production of an equal amount of light.

The General Electric Company is the owner of the following United States patents, among others, relating to tungsten filament lamps, and has been such owner since the respective dates of issue of those patents, all of them having been issued to it, namely:

Just and Hanaman patent 1,018,502, dated February 27, 1912.
Coolidge patent 1,082,933, dated December 30, 1913.
Langmuir patent 1,180,159, dated April 18, 1916.

Langmuir, as well as Coolidge, was employed in the research labora-

⁵ From a price list furnished to agents by the General Electric Company.

⁶ Adapted from a stipulation of agreed facts in the case of the United States vs. The General Electric Company, *et al.*

tories of the General Electric Company at the time when he made the invention set forth in the patent issued upon his application. Each of the above-mentioned patents has been sustained and enforced by one or more United States Courts.

The tungsten filament first manufactured under the Just and Hanaman patent was very brittle, and, consequently, it was expensive to manufacture and easily broken in shipment and use. Coolidge by improvements greatly increased the tensile strength and endurance of the tungsten filament. Langmuir further improved the incandescent electric lamp, and his improvement is used in many, but not all, of the tungsten filament lamps now made.

Of the total output of incandescent electric lamps made in the United States in the year 1921, from 2 per cent to 3 per cent were made with carbon filaments and from 97 per cent to 98 per cent with tungsten filaments; since 1921, the percentage of carbon filament lamps has become still less, and those lamps are used chiefly in those localities in which there is a high probability of theft or breakage due to mechanical shock of the filament or bulb, and where the amount of light and the light-giving efficiency of the lamps are of relatively small importance.

The total output of incandescent electric lamps in the United States in 1921 amounted to about \$68,300,000 in value. All of these lamps (except the carbon filament lamps which were inconsiderable in amount or value) were of the kind described in the above-mentioned Just and Hanaman and Coolidge patents, and many of them were of the kind described in the above-mentioned Langmuir patent. The business done by the General Electric Company and other companies licensed by it was in approximately the following amounts:

General Electric Company	\$47,000,000
Westinghouse Lamp Company (a licensee of the General Electric Company)	10,000,000
Other licensees of General Electric Company	5,600,000
Manufacturers not licensed	4,900,000
Total	\$68,300,000

In the years 1921, 1922, and 1923, the percentages of the total output of incandescent electric lamps, all of which (except the inconsiderable amount of carbon lamps) were of the kinds above mentioned, were approximately as follows:

	1921	1922	1923
General Electric Company ..	69 per cent	62 per cent	61 per cent
Westinghouse Lamp Company	16 per cent	15 per cent	16 per cent
Other Licensees	8 per cent	10 per cent	9 per cent
Manufacturers not licensed ..	7 per cent	13 per cent	14 per cent

THE SALE OF ELECTRIC LIGHT BULBS ⁷

IN THE year 1902 the General Electric Company decided that it would sell its incandescent electric lamps to consumers only (The Westinghouse Lamp Company uses an almost identical sales method), and, as it could not economically reach all parts of the country through its established offices and salaried salesmen, it decided to supplement its existing organization by the appointment of various persons and corporations in the United States to act as agents for it in this connection.

The company retains title to the lamps until they are sold by these agents. None of the agents purchases or owns the lamps, or pays for them except as the agents are responsible for lamps lost or missing from or damaged in the General Electric's consigned stocks in their hands.

About 22 per cent of the company's lamp product (taking an average for the years 1920, 1921, 1922 and 1923 of the amounts paid by consumers for lamps) is sold and delivered by it without the use of any agents. These are sales to large consumers who may readily be reached, and who are in such geographical locations that their requirements may efficiently be supplied from factories and warehouses.

About 37 per cent of the company's sales (taking an average for the same years) are to certain other large consumers with whom the contracts for sale are made with the company; but the contracts are filled by its local agents and on the same prices and terms as though the company shipped the lamps direct as in the case of the distribution of the 22 per cent above mentioned.

The remaining 41 per cent is sold through various agents scattered throughout the country, such agents being authorized to sell only on behalf of the General Electric Company from its consigned stocks in their custody.

The agents through whom this 41 per cent of lamps are sold to consumers are persons and organizations who make a specialty of selling electrical or other merchandise in their various localities. In most of those localities there is not enough business in lamps alone to warrant a person or organization in engaging in the sale of lamps only; the sales would be small and the overhead expense intolerably large. The sales can, however, be economically and efficiently effected by one who deals in other products also, so that the aggregate of sales is increased and the overhead expenses on the lamp sales diminished.

The General Electric Company can and does know who are reliable large distributors in any considerable territory. These large distributors, doing business throughout that territory, make it their business to keep themselves informed from time to time as to who are the reliable concerns

⁷ Adapted from the answer of the General Electric Company to a petition by the United States Attorney for the Northern District of Ohio that the company be restrained from using its agency method of distribution because it violated the Sherman Anti-Trust Act. [Note: The method was sustained by the courts as legal.]

who may efficiently act as small distributors in the several communities in that territory.

The company, therefore, appoints in each territory some of the large and established distributors of merchandise in that territory; these are known as "B" agents.

These "B" agents, knowing the business in the localities in which they severally operate, then recommend various concerns in those localities whom they regard as likely to be efficient and reliable small distributors. The company then decides in each instance if the recommended concerns are acceptable, and, if it finds that the recommendation is warranted, it appoints them as agents. These are known as "A" agents.

The "B" agents are, by the terms of their appointment, authorized to sell and deliver its lamps to consumers from the General Electric Company's stocks which it maintains in their hands, and to deliver lamps on consignment to the "A" agents in their several localities, which "A" agents have agency appointments executed by the General Electric Company and not by the "B" agents. The agents are authorized to sell only to consumers, and at the General Electric Company's sales prices.

A PRICE OF ELECTRICITY ⁸

THESE are petitions praying that the Worcester Electric Light Company be required to reduce the maximum rate charged by it for electricity.

The company now sells electricity at rates varying from a little over 1.4 to 7 cents per k. w. hour, depending upon the quantity, time of use and the use to which the electricity is applied.

We think that the company can reasonably be required to reduce its maximum rate to 5 cents a k. w. hour.

It appears by the company's returns that its net revenue in the year 1926, after making very adequate provisions for depreciation, was approximately \$940,000. It appeared in evidence that in 1926 the company sold 13,261,518 k. w. hours for domestic lighting at the maximum rate of 7 cents. Assuming that the amount of electricity sold during the year 1927 to the domestic lighting customer is the same as that sold in the year 1926, a reduction of 2 cents a k. w. hour as to those customers will result in a reduction of revenue to the company of \$265,230. As the company sold for commercial lighting, in 1926, 15,768,739 k. w. hours at an average of 5.57 cents per k. w. hour, a total of \$879,353.83, by the reduction of the maximum rate to 5 cents there would necessarily be a reduction in this class of revenue of \$89,881.81. This latter amount, added to \$265,230 resulting from a reduction in the domestic lighting rate, would result in a reduction of \$355,111.81 for the year 1927, assuming that the business during the year 1927 was the same as that of 1926. This amount deducted from \$940,000, approximately the net revenue for the year 1926, would leave a total net income available for dividends of

⁸ Adapted from a decision of the Department of Public Utilities, Commonwealth of Massachusetts, Boston, Mass., June 3, 1927.

\$584,888, or approximately 6 per cent on \$10,000,000. We think it is to be expected, as experience has demonstrated in the past, that a reduction of rates will effect an increased use for domestic purposes, resulting in a larger business in the domestic lighting class without corresponding increases in expense. We think it fair to assume that under a 5-cent maximum rate the revenue that will be derived by the company will be in excess of \$600,000.

A rate of approximately 6 per cent is not a low rate in Massachusetts, but, on the contrary, is a very attractive one when applied to securities of a public utility company situated as this one is, and in effect protected from competition by the laws of the Commonwealth. A billion and a half of dollars has been attracted into the savings institutions of the Commonwealth by a return ranging from 4 to 5 per cent. Stocks of many of our public utilities are selling at prices which yield less than 6 per cent and, in some instances, less than 5 per cent to the purchaser in the open market. Very recently bonds of a railroad operating wholly within Massachusetts were issued and sold at an interest rate of $4\frac{3}{4}$ per cent and another New England railroad issued and disposed of its bonds at a $4\frac{1}{2}$ -per-cent interest rate. The stock of the Worcester Electric Light Company is as attractive as that of any company in the Commonwealth, and in our judgment a return of 6 per cent upon the assumed value of \$10,000,000 would maintain the stock at a price which would fairly reflect such a valuation. Under these circumstances we are unable to see how a maximum rate of 5 cents a kilowatt hour will infringe any constitutional right or will be in any way unreasonable to the company.

* * *

There is no single explanation of any price. At a given time there may be one factor in a price situation which seems to be more potent than others, but a complete explanation of any price involves an excursion deep into the whole economic structure of which it is a part. This is illustrated by the following explanatory discussion of a recent decline in the price of crude oil. An explanation of this decline, of course, might simply have been made by stating that there was too much oil. But why was that so? The attempt to answer that question involves an inquiry into law, technology, personalities, and many more subjects to which the following discussion of the price decline calls attention.

THE PRICE OF CRUDE OIL ⁹

by Erich W. Zimmermann

Six price cuts in the price of crude oil between November 2, 1926, and April 13, 1927, carried the price of the average grade from \$2.37 per barrel to \$1.05 per barrel—a reduction of 55.6 per cent.

⁹ Adapted from "The Crisis in the Petroleum Industry," June 6, 1927, and "Oil Conservation and Development," June 8, 1927, *Editorial Research Reports*, Washington, D. C.

This reduction in the price of crude oil led to drastic declines in oil stock prices. According to a *New York Times* dispatch of May 25, 1927, the thirty oil stocks quoted on the New York Stock Exchange alone showed at that time a decline of almost \$560,000,000, measured from their high point in 1926.

Before this price decline can be appreciated, the causes of the chronic tendency toward over-production of crude oil in the United States must be understood. These causes have to do with the nature of petroleum, with the nature of the human element in the industry, with the technics and the economics of the industry in all its phases, and finally with the legal aspects, principally of petroleum production.

Consider the nature of petroleum. Petroleum is a migratory and fugitive resource. After a pool has once been opened, cessation of production may mean that the owner of the well will lose the underground supply. The oil may migrate to other levels and thus deprive the owner of the surface land of his legitimate property. Once produced, the oil proves fugitive in the sense that losses from seepage and evaporation reduce the supply unless it is speedily removed for consumption, or carefully stored. Storage is a very expensive undertaking.

For technical reasons which have to do with the safety of production or with the protection of the property, a pool after it is once tapped may have to be rapidly exploited. This tendency is greatly reinforced by the peculiar nature of the industry. In the first place, owing to the gambling appeal which oil stocks have for many people, new capital can easily be found. Secondly, over-production tends to lower prices and they in turn stimulate consumption. Petroleum can be used in many ways, either in the crude or in the manufactured state. If the price is high, its use is confined to such purposes as automotive fuel; if the price is low, increasing quantities are sold in the crude state for fuel purposes to compete with coal. Thus petroleum can always be marketed after a fashion.

The most important reasons for the hasty exploitation of petroleum are found in the mining laws. They were largely devised to govern the production of solid minerals and, therefore, contain many features which fail to take due cognizance of the peculiarities of petroleum. This refers particularly to the basic principle that mineral wealth belongs to the owner of the surface land—a principle better adapted to solids which cannot move away from their location under a given piece of property, than to liquids. The only liquid resource with which the early English law makers had to deal was water, which is very abundant in a country with a climate as moist as that of the British Isles. The British laws provided the model for the corresponding American laws, and thus the peculiar behavior of petroleum and the increasing scarcity that is characteristic of all wasting resources were largely ignored.

Under the American mining laws petroleum production has been anything but an orderly business. Generally it is a wild scramble for oil among adjoining property owners. The chase is wildest where the surface land is subdivided into small holdings and fractional drilling sites. Not

only the rate of drilling but the production per well is subjected to an unreasonable pressure, and oil is produced in haste without regard to the needs of the market, for each owner feels that haste alone can save his property. This general condition is aggravated by specific legal regulations which serve the purpose of assuring or enhancing competition. They may take the form of clauses inserted in leases calling for rapid and thorough exploitation within a definite time, or they may place a time limit upon the lease and thus again encourage rapid exploitation.

The General Leasing Law passed by Congress in 1920 to govern the administration of the public domain and Indian lands by the Department of the Interior provides every incentive for haste, and the state legislatures vie with the federal authority in legally enforcing rapid exploitation of the country's petroleum resources. In oil-producing states the producer employs his influence to prevent the enactment of any legislation which might interfere with his right to produce all the oil he can in the least possible time. And in the consuming states the influence of the consumer precludes the enactment of legislation which might tend to increase the prices of petroleum and petroleum products. Thus public opinion throughout the country appears to be firmly set against any legislation which might result in retarding petroleum production. On the other hand, the belief that competition is the life of trade leads to the enactment of laws which contribute to the speediest possible exploitation of petroleum resources.

The geography of oil production has an important bearing on the present price situation in several respects. Most gasoline—and, in times of over-production, practically all gasoline—is obtained from the lighter grades of crude oil. It is, therefore, of importance to know whether flush production is going on in areas producing heavy or light varieties of crude oil, for gasoline is by far the most important product obtained from petroleum. It sets the pace of production and largely governs the price of crude oil.

Flush production of heavy grades is apt to disturb the equilibrium of the market of refined products very much less than an equally heavy production of the light varieties of crude oil which, with relative ease, yield a considerable amount of gasoline. One reason why the present oversupply situation is more serious than usual lies in the fact that the present center of flush production is the Mid-Continent field, a region which produces principally light oils and which is connected by means of an elaborate system of pipe lines both with tidewater and with the refineries of the North and East.

Recent technical advances in oil production and refining have a great deal to do with oil prices. The most important of the scientific advances on the side of production has been the perfection of the artificial lift system, which accelerates the flow of oil from oil sands through the application of air pressure, and permits the complete exploitation of fields in which it is employed. Efforts have been made for several years to rejuvenate old fields by artificial lift methods, but the Seminole field in

Oklahoma is the first to which such methods have been applied at the outset. During 1926, more than \$3,500,000 was expended on auxiliary machinery and the generation of air pressure to increase and accelerate the flow of oil in the Seminole field. Better drilling and artificial lift methods have enormously increased both the total supplies of oil in sight and the speed with which this oil can be brought to the surface. Large capital investments are at present being made in the West Texas field, and the completion of the pipe lines will be the signal for a new flood of oil, which in the opinion of leading experts will overshadow all previous production records.

Improvements in the technic of petroleum refining have been even more rapid and more revolutionary in their immediate effects than the advances made during recent years in the production of crude petroleum. At present the refineries are turning out almost 40 per cent of gasoline from crude oil, where in 1900 the average amount was only slightly over 9 per cent.

For forty years after the first petroleum well was discovered in the United States—until about 1900—the petroleum industry was run on a kerosene basis. Kerosene was the major product which determined the rate of production. Other petroleum products were looked upon as more or less undesirable by-products, if not waste products. The coming of gas and electricity, while not completely ruining the kerosene business, definitely ended the leadership of kerosene. On the other hand, the coming of the automobile created an ever-growing demand for gasoline. The despised by-product of the nineteenth century thus became the pace-maker of the industry, its prop and mainstay, in the twentieth. In response to this change of the demand, the petroleum industry has radically revised its technical processes.

Several ways are open to the industry in its effort to increase the yield of gasoline from a given quantity of crude oil. In the first place, the refiner may "raise the end-point" of gasoline by adulterating it with the lighter substances contained in kerosene. The resulting deterioration of the gasoline may be offset by adding so-called "no-knock" ingredients, such as benzol or tetraethyl lead. Secondly, gasoline may be produced from natural gas—so-called natural gas gasoline or casinghead gasoline—and from other vapors which formerly were allowed to escape. Since casinghead gasoline is extremely rich, it is disproportionately valuable and is used for the enrichment of poorer grades. Finally, the petroleum chemist has learned to break up or "crack" the heavier portions of the crude oil which are left after gasoline has been taken off by skimming or straight-run methods. This cracking makes it possible to obtain additional quantities of gasoline from the heavier portions of the crude, principally from so-called gas oil.

Until the cracking process was perfected, gas oil was a more or less undesirable by-product of gasoline production—undesirable in the sense that it was difficult to find a market for this product. As late as 1923, Mid-Continent crude when submitted to ordinary straight-run refining

would yield about 40 per cent of gas oil as compared with 25 per cent of gasoline. In order to produce the amounts of gasoline the market demanded, it was necessary to produce a great deal of gas oil, much more than the market could absorb at remunerative prices.

Cracking was first introduced in 1912 and gradually gained in importance until, in 1926, almost one-third of all the gasoline produced in the United States was cracked gasoline. The cracking process has become particularly important since 1920 when a new method of cracking was devised which can be applied not only to gas oil, but to any crude oil which is produced anywhere.

As a result of the invention of the cracking process in 1912 and its improvement in 1920, the gasoline supply of the country has been enormously increased. Through cracking and other methods of increasing the gasoline yield, the amount of gasoline obtained from a given quantity of crude has been continuously increased until at present 40 per cent of the crude oil run through stills is being made into gasoline.

The present American consumption of gasoline is about 11,000,000,000 gallons annually. To produce this amount would require 55,000,000,000 gallons, or about 1,300,000,000 barrels of crude oil, if the gasoline yield had not been raised above 20 per cent. By raising the gasoline yield to $33\frac{1}{3}$ per cent it was possible to cut the crude oil requirements down to 33,000,000,000 gallons. Figuring at the present rate of 40 per cent, only between 27,000,000,000 and 28,000,000,000 gallons of crude oil are needed to supply the American demand for gasoline.

These are some of the considerations that must be taken into account before it is possible to understand the behavior of oil prices.

A price reports the ratio, in terms of dollars or whatever monetary unit may be used, at which goods and services change hands. The things to which prices are attached also include contracts to deliver a given amount of goods or services at a later date. Such contracts, of course, are of very great importance in an economic society where the processes of production are carried on by large-scale roundabout methods. The clothing manufacturer, making suits in the summer for sale during the following spring, seeks to sell advance orders which are one form—a fairly loose one—of contracts for future delivery. Similarly, the automobile manufacturer, the furniture manufacturer, indeed, all people who are engaged in a time-consuming productive process, seek to sell their output in advance, primarily in order to eliminate the risk involved in producing for an uncertain market.

The contract for the future delivery of goods and services, a widely used device in our economic organization, has reached its highest development on some of our great commodity exchanges. There prices of promises to deliver goods in the future are quoted with the same

regularity and precision as are the prices of goods destined to change hands at once. In the following group of articles there is a discussion of "future" prices—those of grain—designed to indicate what they are, why they are, and some of the possible advantages and disadvantages of such a system of prices.

"FUTURE" PRICES OF GRAIN ¹⁰

THE prices of grain are of two sorts—"cash" and "future." Cash prices broadly defined are those paid for the actual commodity, which is usually to be delivered promptly following the execution of the contract of sale. Future prices are prices to be paid for grain to be delivered at some future time, in practice under a contract made upon and under the rules of an exchange. Such contracts are made for certain standard delivery months and are thereby distinguished as May wheat, December corn, and the like. The contracts by which future prices are thus fixed are technically not sales or purchases, but merely agreements to sell and to buy at some future time. It seems unavoidable, however, to refer to the transactions as sales and purchases. But they are not sales and purchases of grain, since most of these agreements to sell and deliver or to buy and pay for grain at some future time are offset and in effect canceled by subsequent agreements on the other side of the market. Only a small proportion of them remain alive long enough to ripen into actual sales or purchases of grain. Such futures, however, are actively dealt in, in very large volume.

Trading prior to the possession, or even to the existence, of the commodities to be delivered is an incident of commercialized industry, of which examples are to be found in the oldest and simplest of the so-called "trades" or crafts, and, of course, on a greater scale under modern methods of manufacture. A tailor sells a suit before he makes it, and often before he buys the material. A building contractor might be said figuratively to sell houses "short." Many lines of manufacture produce chiefly under orders from customers. But these cases serve to illustrate the distinctiveness of future trades, instead of their similarity to other commercial transactions. Future contracts are not agreements to produce and deliver a specified and identified article, while the house, or the suit, is "built" for a specific customer, according to a specified design. In the case of a manufacturer of standardized goods making and selling on order, specifications for the commodity to be delivered are detailed. Furthermore, the principals on the contract are and normally remain the same throughout its life.

In future trading on the speculative exchanges the specifications as to the commodity to be delivered are a matter settled by the rules of the exchange and not directly by the individuals concerned. This condition

¹⁰ Adapted from *Federal Trade Commission Report on the Grain Trade, 1920*, Vol. V, pages 24 ff.

naturally results from the desirability of a continuous volume of comparable trades large enough to constitute a serviceable market. Such uniformity of terms and conditions is an indispensable feature of a futures market.

A prerequisite to the development of future trading on an exchange is homogeneity in the commodity dealt in, such that commercial units are interchangeable. A further requisite is the durability, or minimum degree of perishability, of the commodity, which in effect permits a physical exchange from present to future. Included in this second requisite is ample provision of storage facilities at terminal markets. As regards durability and storage, whatever is lacking under natural conditions for the keeping of grain has been supplied by the development of elevator warehouses, often of individual capacity running into millions of bushels.

Grain as handled in bulk is in its nature fairly homogeneous in kind and quality. Not only is the grain in store interchangeable, but the warehouse receipts, which are the evidences of ownership, are also interchangeable, *i.e.*, are negotiable instruments. This fact has an important bearing on the availability of warehouse receipts as collateral for loans. Thus, in effect, the entire stock of grain in public storage at a given market becomes a single deliverable supply in a sense that is seldom approximated in ordinary commercial dealings. Grain stored in private elevators also can easily be put into public storage for delivery on future contracts.

Another requirement of future trading is an adequate supply of the actual commodity and a fairly constant supply from year to year, flowing to or through the terminal market where the future market is established. This, in turn, supposes adequate physical facilities for receiving and storing the commodity. Without such a condition, the proper connection of the futures market with the cash market by way of deliveries on future contracts cannot be maintained. For similar reasons, a grain in which there is a small and variable crop is not well adapted to future trading.

Commodities traded in by way of futures in the United States in addition to cereals are cotton, coffee, sugar, flaxseed, grass seed, pork products (mess pork, lard, and short ribs), cotton oil, and certain metals (tin, copper, spelter, or zinc, lead and probably others). All these meet the requirements of the above list of prerequisites. It is said there was at one time a futures market in petroleum at Oil City, Pa. This list is probably not complete, and the distinction between the future contract and other contracts may not always be exact.

Other commodities that appear to meet the requirements, but for which there does not appear ever to have been an organized market for future trading, are tobacco, vegetable fibres (sisal, jute), coal, and possibly other raw materials that are largely of uniform quality and are produced and transported in great volume—supposing, of course, a system of grading in each case, the establishment of separate futures for different varieties, and due recognition, as regards coal, of the different prepared sizes.

GRAIN "FUTURES" AND HEDGING ¹¹

"HEDGING" is the term commonly applied by the grain trade to the method employed by many dealers in cash grain of protecting themselves against losses due to market fluctuations by executing with cash purchases and sales practically simultaneous future transactions upon the opposite side of the market. This is done upon the assumption that the prices of cash and future grain will move up and down together and that as the trades are on opposite sides of the market the decline or advance of either will be compensated by a corresponding fluctuation in the other. While this theoretical harmony in the movement of cash and future prices is not always to be found and the coincidence of the two movements is often more or less seriously distributed, it is none the less well established that, broadly speaking, the cash and future prices actually do move up and down together with considerable regularity, if not in the same degree. Consequently, this fact is often taken advantage of by country elevator merchandisers as well as other cash grain dealers, both of which classes frequently execute practically simultaneous cash and future trades on the opposite sides of the market, expecting since cash and future prices move together, that gains or losses in cash or futures, bought or sold, will be compensated or offset by corresponding losses or gains in futures or cash sold or bought.

Country elevators which hedge their grain do so primarily for the purpose of protecting their buying margin—i.e., the difference between the prices paid the farmer and those prevailing in the terminal and other markets. If these elevators could sell the actual grain immediately after purchase, hedging would be unnecessary, since in such event the risk of market fluctuations between the time of purchase and the time of sale would be comparatively slight. Owing to the long distance to markets, the differences in the methods of sale, and other factors, however, days, weeks, and sometimes months may intervene between purchase and sale, during which period the grain purchased is subject to all the risks of world-wide market fluctuations and possible profits and losses owing to advances and declines of prices. Recourse, therefore, is sometimes had by the country elevator to the selling and buying of futures in order to insure that the buying margin upon which the elevator bought the farmer's grain is not reduced or wiped out.

The following theoretical illustrations of the employment and results of hedging by country elevators will sufficiently explain the practice. The Farmers Elevator Company at Barrett, Minn., a subscriber to the *Grain Bulletin* price information service, is assumed to be the elevator engaging in the various trades, and the year 1913 has been selected as the time of the transactions, owing to the fact that the course of prices during that year was such that the various illustrations could be easily worked out. The prices employed are within the ranges of the actual cash and future

¹¹ Adapted from *Federal Trade Commission Report on the Grain Trade, 1921.*

prices prevailing in Minneapolis on the specific dates, and for the purposes of the example it is assumed that the *Grain Bulletin* card is followed exactly.

The freight rate from Barrett to Minneapolis is 8.8 cents per hundred-weight, or 5.28 cents per bushel on wheat. On October 2, 1913, the *Grain Bulletin* price card received by the Farmers Elevator Company made the minimum buying price of No. 1 northern wheat at Barrett 75 cents per bushel. The Minneapolis market price on which this price was based was about 85 cents per bushel. The difference between the price shown by the card and the terminal price, 10 cents, was the gross buying margin. As the freight rate is 5.28 cents per bushel and the *Grain Bulletin* price card usually eliminates the fractions, it may be assumed that the 10-cent margin was composed of 5 cents for freight and 5 cents to cover the costs of operation and the elevator's profit. Assuming that 3½ cents per bushel covered the costs of operation and 1½ cents per bushel is the balance of profit, the gross margin was divided as follows:

Freight per bushel	\$0.050
Cost of operation per bushel .....	.035
Net profit per bushel .....	.015
 Total margin	 \$0.100

By 11 a. m. on October 2, 1913, let it be assumed that the Farmers Elevator Company has purchased from various farmers a total of 1,000 bushels of No. 1 northern wheat, paying for it the price shown on the card for grain of that grade, namely, 75 cents per bushel, making the total cost of this grain \$750. In order to hedge this transaction the elevator operator would wire to his commission firm in Minneapolis about as follows: "Sell 1,000 December wheat against cash purchases."

Upon receipt of the above telegram the commission firm executes the order in the future pit, either directly or through a pit trader. On October 2, 1913, the December wheat future opened at \$0.83¾ and during the day's trading the high point was \$0.85¼, the low \$0.84½-5/8, and the closing prices were \$0.85⅛ to \$0.85¼. For the purposes of this illustration, assume that the future sale of 1,000 bushels was made at \$0.85 per bushel, or at a total cost of \$850. After effecting the sale, the commission firm sends a confirmation of this trade to the country elevator.

About a week later, on October 10, 1913, the elevator operator loads a car with 1,000 bushels of No. 1 northern wheat and consigns it to his commission firm at Minneapolis. At the same time the firm is instructed to buy in 1,000 bushels of the December wheat future upon sale of the carload of wheat, in order to close out the 1,000 bushels of December which was sold on October 2.

On October 17 the car reaches Minneapolis. It is inspected and graded and a sample of the wheat is sent to the commission firm's table on the trading floor of the Chamber of Commerce. On that day No. 1 northern

wheat sold for \$0.81 to \$0.83 $\frac{3}{8}$, this last price being for only one car which contained good dockage. The highest general price was \$0.83 $\frac{1}{2}$. Let it be assumed that the commission firm's cash grain salesman receives an offer of \$0.82 per bushel for the car and accepts it, and that the firm receives therefor \$820.

When the car of cash grain has been sold, the commission firm's pit trader buys in the pit 1,000 bushels of December wheat to close out or cancel the elevator's future account of 1,000 bushels sold in October 2. On the day in question—October 17, 1913—December wheat opened at \$0.80 $\frac{1}{2}$, the high was \$0.80 $\frac{7}{8}$ -81, low \$0.79 $\frac{7}{8}$ -80, and the close \$0.80 $\frac{7}{8}$ to \$0.80 $\frac{3}{4}$ - $\frac{7}{8}$. The pit trader executes the trade at \$0.80 per bushel and purchases 1,000 bushels of December at a price of \$800.

An account sale of the cash transaction is then prepared by the commission house and also an account of purchase and sale of the future, and both are mailed to the elevator.

The results of the cash transaction to the elevator are as follows, disregarding all charges for commissions, weighing, inspection, etc.:

Sold 1,000 bushels No. 1 northern, at \$0.82	\$820.00
Cost of 1,000 bushels No. 1 northern, at \$0.75	750.00

Gross profit	\$ 70.00
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Less freight, \$0.0528 per bushel	\$ 52.80
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Less operating expenses, \$0.035 per bushel	35.00
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Total expenses	\$ 87.80
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Net loss	17.80
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On the basis of prevailing cash market prices, therefore, at the time of the purchase and sale of this particular thousand bushels of wheat, and assuming a 10-cent buying margin, this elevator would have lost \$17.80, had only the foregoing cash buying and selling transactions been effected.

But at the same time that the elevator bought the wheat from the farmer it also, as stated, sold 1,000 bushels of the December future, and when it sold the actual grain at Minneapolis it bought back 1,000 bushels of the same future, thus canceling its previous sale. The results of this operation were as follows, disregarding commissions:

Sold 1,000 bushels December at \$0.85	\$850
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Bought 1,000 bushels December at \$0.80	800
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Net profit	\$ 50
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While, therefore, the elevator lost \$17.80 on the cash operation, it made \$50 on the future, and thus made a profit on the whole transaction of

\$32.20. Actually, of course, the profit was somewhat less, since commissions, fees, etc., would amount to at least a few dollars.

While the above illustration is fairly typical, some elevator operators do not sell the future until the car of actual grain has been loaded and is ready to be hauled to the terminal market. The future is then closed out (purchased) upon sale of the actual grain. Again, there are elevator companies which do not close out the future at the time the cash is sold, thus incurring a speculative chance of loss or gain. For example, if in the above illustration the elevator operator had not notified the commission firm to close his future upon the sale of the cash grain, but had left it open in anticipation of a decline in the future price, he would, in essence, be speculating, since he would be taking the chance of an increase or a decrease in his profits. If the future prices had declined, his profit of \$32.20 on the whole transaction would have been increased, as he had originally sold the future, and the declining prices would enable him to buy in and cancel this sale at a lower price than the 80 cents per bushel which he paid in the illustration given.

Had the price of December wheat dropped to 75 cents per bushel, and had the operator bought in his future at that price, his net profit on the whole operation would have been \$82.80 instead of \$32.20.

Sold 1,000 December wheat at \$0.85 per bushel	\$850.00
Bought 1,000 December wheat at \$0.75 per bushel ..	750.00
Net profit on future transaction	\$100.00
Less loss on cash transaction	17.80
Total profit	\$ 82.20

On the other hand, if we assume that the elevator operator had not closed out his future upon sale of his cash grain, and the prices of futures had not declined but had advanced to, say, \$0.87 per bushel before he closed out his trade, the result would have been:

Sold 1,000 December wheat at \$0.85	\$850.00
Bought 1,000 December wheat at \$0.87	870.00
Net loss on future transaction	\$ 20.00
Net loss on cash transaction	17.00
Total loss	\$ 37.00

From the above it follows that hedging in the most exact sense of the term and to secure the fullest possible protection requires that the execution of the cash and future transactions on opposite sides of the market should be as nearly simultaneous as possible, and that the further

apart they are in point of time the more the operation partakes of speculation and the less the reason for regarding it as hedging.

The hedging operator consents to a limitation of his profits in return for a limitation of his losses. Being upon opposite sides of the market, in the cash and in the futures, loss as a buyer of cash wheat, if cash declines, will theoretically be compensated by his profit as a seller of futures on the corresponding decline of the future. Conversely, if the cash advances, the hedger's gain as a buyer of cash will be reduced by his loss as a seller of futures from the corresponding advance in the future market.

FUTURE TRADING AND PRICE STABILIZATION ¹²

FREQUENTLY attempts have been made to deal with the question of the stabilizing effect of future trading upon grain prices by comparing periods prior to the practice of trading in futures with periods since there has been such trading. Such a comparison, in order to prove anything, must first prove that other things are equal—either that there have been no other changes between the two periods or that any other changes that may have occurred had no effect on the fluctuations of grain prices. Obviously no such proof can be offered. Great improvements in transportation facilities have occurred between most of the periods thus compared, and they are doubtless of a nature to affect fluctuations in grain prices.

Improved transportation facilities have an important bearing upon fluctuations in grain prices. Where supplies are with difficulty drawn from other localities, a grain shortage is reflected promptly and sharply in price changes, the demand for staple grains being rather inelastic. But if more distant regions can be drawn upon in case of a deficit in the home product, the extremely high prices are certain to be moderated by this means, and *vice versa*. Even if the possibility of export from a locality is made use of only very rarely, the disposal of the surplus from a super-abundant crop in this way will prevent an extreme slump in prices for that season. Of course it is theoretically possible that all regions that can be drawn upon for supplies—under present conditions, all countries—will show a shortage or a super-abundance of grain at the same time. But the fact of significance is that the chances are very much against such a coincidence, and increasingly so as the extent of the regions that can be a factor in supply increases.

A common illustration of the importance of transportation as a means of improving material conditions is the reference to the fact that under medieval conditions one small principality might be starving while the rest had super-abundant crops. There were no effective means of communication and transportation between them. Similar conditions have occurred in Russia and China—where railroads are far between—in the present day. But there could scarcely be such a thing as a famine price

¹² Adapted from *Report of the Federal Trade Commission on the Grain Trade, 1924*.

for wheat at Chicago. It is the boast of the exchange that there is always a market there, at a low price perhaps, but certainly not so low as it could easily be where local supplies could find no outlet. Evidently the before-and-after type of historical comparison has little convincing force as applied to the question whether future trading stabilizes prices.

To test whether future trading operates as a stabilizing influence, comparisons may be made between prices of commodities in which there is future trading and prices of commodities in which there is no future trading. Grain is thus compared with other commodities. The results are of interest, even though they need to be supplemented by more extensive study. A test is made by grouping commodities into those having futures markets and those not having futures. On the face of the results it appears that commodities having futures markets, and in particular, perhaps, the grains, show greater fluctuations within the year than commodities without futures markets. But an examination of the composition of these groups of commodities shows that raw materials and agricultural products dominate the group having futures, while the group without futures consists chiefly of manufactured articles. Aside from the general fact that manufactured products tend to fluctuate in price less than raw materials, the group of agricultural products in particular is bound to be affected by seasonal variation in prices, while manufactured products are little, or not at all, affected thereby. Therefore the apparently unfavorable result of the comparison for future trading is not conclusive. It appears, however, that there is no convincing argument, or mass of data, that supports the commonly accepted proposition that future trading acts as a generally stabilizing influence on prices. Until further evidence is forthcoming, the comparisons made point at least to the conclusion that future trading cannot be assumed to have such a stabilizing effect.

The theoretical economic argument that speculation tends to stabilize prices is based upon an unexpressed assumption that speculators know something about the commodity with which they are dealing, and are collectively able to form a judgment, warranted by the event, as to what the price of the commodity is going to be at some future time. If there is a large element attracted into a speculative market that does not know much about the commodity dealt in and who are, therefore, merely gambling, the foundation is cut from under the argument that speculative markets operate as stabilizers of prices. The uninformed mob of speculative gamblers may easily be a factor in causing very considerable price fluctuations. Gambling implies ignorance rather than knowledge.

In the preceding statements there has been a consideration of a limited number of actual price situations, as well as a discussion of some of the advantages and disadvantages of the maintenance of a system of future prices for certain commodities. The number of prices con-

sidered has necessarily been very limited. It has not included a fair cross-section of prices, and could not, indeed, short of several volumes.

Furthermore, specific prices cannot be isolated, studied, and completely understood without reference to the whole system of prices of which they are a part. In 1913 the average price of No. 2 red winter wheat at Chicago was 88 cents a bushel. In 1919 the average price of the same grade of wheat at Chicago was \$2.24 a bushel. In order to understand this striking change in the price of wheat it is necessary to study factors having to do with the whole system of prices—factors leading into a discussion of monetary, credit and general business conditions. Consequently in the next three chapters general price movements will be considered.

QUESTIONS

1. In the story of the porterhouse steak, what was the average price paid the farmer for one steer? How many pounds are there, on the average, in a steer? How much did the farmer receive per pound then? How does your answer compare with the 11¢ the packer talked about? Wherein lies the difficulty?
2. The butcher claimed he paid 76.8¢ to the packer for two pounds of porterhouse. How did he figure that out? What type of cost is involved in this situation? (See Chapter VIII.) If his customers had preferred other cuts to porterhouse, could he have sold the two pounds of porterhouse for \$1.00? If not, would he have said the steak "cost" him 76.8¢? Is the analysis in the article based solely on cost of production?
3. "The average profit of the four biggest packers in 1923 was 1.56¢ per dollar of sales." Would you regard this as a reasonable profit? Would 2¢ be excessive? One cent too small? How do you judge? Would you prefer to know per cent of return on investment or per cent of profit on sales? Why?
4. What did cost of production have to do with the selling price of the 1926 cotton crop in the United States? When and how is cost of production an important factor in determining the price of cotton? Whose cost of production?
5. The price of wheat in the United States is consistently lower than the price in Liverpool although there is a 42¢ tariff on wheat. How do you account for that?
6. To what extent is competition a factor in determining the price of tungsten electric light bulbs? The price of electric power?
7. Do you think the competitive system is well adapted to the oil-producing industry? If not, what other kind of a system would you propose?
8. How did scientists contribute to the drastic price decline in crude oil prices during 1927? How did lawyers contribute?

9. "Speculators in the necessities of life are nothing but parasites. They should be prevented from pursuing their callings." Discuss.
10. Defenders of future trading on the grain exchanges point to the fact that when such trading was suspended during the war, the spread in the price of grain between the time it reached the country elevator and the time the miller converted it into bread was greatly increased. How, in the light of your understanding of the hedging process, can you account for this fact?
11. Under what conditions is it profitable to sell "short"?
12. Some economists argue that a social service may be performed by speculating in commodities, but none by speculating in stocks. What justification can you see for such a position?
13. What does the question of whether or not future trading acts as a stabilizing influence have to do with the justification for maintaining it?
14. Does it seem from the discussion in this chapter that there is a general set of rules covering the question of how prices are determined? Explain.

GENERAL PRICE MOVEMENTS AND THEIR MEASUREMENT

THIS chapter, after indicating that relative prices are much more important than actual prices, will be concerned with:

- (1) General price movements in the United States.
- (2) The measurement of general price movements.
- (3) Limitations on the usefulness of averages in measuring the changes in price relationships.
- (4) The nature of the problems raised by shifting prices.

TEXTILE manufacturers and coal operators in the South defend the payment of lower wages than are paid in similar industries in the Northern states on the ground that the cost of living is lower in the South. In so doing they make a contention that is important in our highly specialized economic system. That contention is that the actual price of a commodity or service is of much less importance than its relative price. If it is true that a wage of \$2 a day will purchase as much in a Southern textile center as a \$3 wage will in New England, the Southern workman receiving \$2 may be just as well off although he actually handles only two-thirds as much money as his fellow worker in the North. It makes no difference whether the price of shoes is \$200 a pair or 50 cents a pair, if the relation of the price of shoes to other commodities and services remains the same. If at midnight on a given date a government decree should go into effect doubling or halving the price of everything to which a price can be attached it would make no difference in the welfare of the people of the country if they were fully advised about what was being done, and all the necessary monetary arrangements were carried out perfectly. Prices are simply tags which become important in their relation to the price tags on other commodities and services for which they are exchanged.

In the actual working of our economic system, price relations are subject to upset. That, in the minds of many people, is the greatest single defect in our economic system. It gives rise to two very serious economic problems. One is the problem of securing steady use of our human and material resources, the problem of preventing recurring periods of "hard times" when many men who want to work are idle equipment with which they might work is rusting and falling into

decay. The other is the problem of securing justice for various groups hard hit by changes in price relationships, particularly debtors and creditors. If prices fall debtors suffer because they must pay a fixed number of dollars to their creditors no matter how little they can get for their own products. If prices rise creditors get little purchasing power in return for what they loaned. Other groups feel the effects of price changes in similar fashion. Salaried workers or wage earners may be made much poorer simply by a rise in the retail prices of groceries and clothing.

These problems will be discussed in turn in subsequent chapters. In this chapter there will merely be an indication of the character and extent of general price movements in the United States during recent years; the methods used to measure such fluctuations; limitations on the usefulness of such methods; and a general statement of the problems involved in shifting price relationships.

GENERAL PRICE MOVEMENTS IN THE UNITED STATES

THERE is chronic complaint in the United States about "the high cost of living." This is due to a number of causes. Perhaps the particular individual making the complaint has allowed his inclination to spend to outstrip his income, and so is harassed by the problem of stretching a rather rigid income to fit an expanding inclination to consume. Perhaps he is spending his money carelessly, and so finding that it does not go so far as it did when more attention was devoted to the art of spending. Or perhaps the cost of the things he is accustomed to buy is rising faster than his income.

The person who finds the cost of his purchases rising faster than his income has only an abstract interest in the general "price level," or the average of all prices. A man going to buy a suit of clothes and a piece of meat does not inquire about the general price level. He asks about the price of clothes and meat, and forms his conclusions about the "high cost of living" on the basis of these specific prices rather than of prices in general. If these prices have risen faster than his income he feels a pinch. If not, he may feel a temporary glow of satisfaction.

Although the general "price level," like the average man, is an abstraction, it is, none the less, a useful device for studying symptoms of conditions affecting the specific prices in which people are vitally interested. By comparing all prices at one date—those of pens, swords, carpentering, cement, shelter, yams and what not—with all prices at another date, it is possible to study general price movements which are of marked importance so far as individual prices are concerned.

Unfortunately no entirely satisfactory measure of the "price level" has been perfected. The one most generally used is based solely on the wholesale prices of commodities. This is obviously fairly crude, since retail prices and wage rates both vary in very different fashion from

wholesale prices and are quite as important as wholesale prices. Nevertheless, we may use this index of wholesale prices if we recognize it for what it is and do not pretend that it pictures changes in the general "price level" with any great accuracy.

There is rather widespread belief that prices are stable except when unusual events like wars upset the "normal" situation. This is not true. Although war periods have seen the most dramatic shifts in prices, the level of wholesale prices has been and is shifting all the time, war or no war. For example, in the fifteen years of peace between 1882 and 1897 it fell about 40 per cent; in the single year between January 1922 and January 1923 it rose 13 per cent.

Are these continual changes regular and uniform or are they rather haphazard? Does the level of wholesale prices rise at a given rate for a certain period and then fall according to a prearranged schedule with the regularity of clockwork, or are changes somewhat erratic? As a matter of fact, changes do not occur at the same rate each year, nor does the drift in one direction continue for any specified period. The fall of wholesale prices after May 1920, for example, continued for only a year and a half but was so rapid that prices at the beginning of 1922 were one-third lower on the average than in the middle of 1920. Sometimes a downward movement continues for several years without making so drastic a change as that. Somewhat more regularity can be found in the price fluctuations of certain individual commodities and groups of commodities.

The sort of major changes that have actually taken place in the level of wholesale prices since 1890 may be discovered in a study of the table below. It shows index numbers of wholesale prices and indicates the percentage increase or decrease in each year in terms of the preceding year. What is an index number of wholesale prices? Simply a number which indicates the level of wholesale prices at one time as compared with another. If prices at wholesale double, the index number doubles. How index numbers are constructed is explained later in this chapter.

A variety of price movements appear during this thirty-seven-year period. In the first seven years wholesale prices continued to fall as they had done almost continuously since the Civil War. From 1897 to 1913 a gradual rise occurred, interrupted only by minor declines in 1901, 1908 and 1911. The Great War, which meant disaster to so many families, brought prosperity to others—huge fortunes were made out of an unprecedented rise in prices which continued until 1920. Then prices came down with a thud. Many a business executive who in 1919 told the public how pluck and foresight accounted for his success was out of a job in 1921. Monthly data would show an index number of 138 in January 1922, as contrasted with 247 in May 1920. Between 1922 and 1927 price changes have been small as compared with the war and post-war period, but not as compared with pre-war years.

Without studying these figures in great detail we can see that wholesale prices have been shifting continuously during the entire period, and

PROBLEM ECONOMICS

FLUCTUATIONS IN WHOLESALE PRICES¹

Year	Index Number	Per Cent of Increase (+) or Decrease (—) Compared with Preceding Year
1890.....	81	.....
1891.....	80	— 0.7
1892.....	75	— 6.4
1893.....	77	+ 2.4
1894.....	69	— 10.3
1895.....	70	+ 1.9
1896.....	67	— 4.7
1897.....	67	+ .1
1898.....	70	+ 4.2
1899.....	75	+ 7.6
1900.....	81	+ 7.5
1901.....	79	— 1.5
1902.....	84	+ 6.4
1903.....	86	+ 1.3
1904.....	86	+ .1
1905.....	86	+ .7
1906.....	89	+ 2.8
1907.....	94	+ 5.5
1908.....	90	— 3.6
1909.....	97	+ 7.5
1910.....	101	+ 4.1
1911.....	93	— 7.2
1912.....	99	+ 5.9
1913.....	100	+ .9
1914.....	98	— 1.9
1915.....	101	+ 2.8
1916.....	127	+ 25.8
1917.....	177	+ 39.7
1918.....	194	+ 9.7
1919.....	208	+ 6.2
1920.....	226	+ 9.6
1921.....	147	— 35.1
1922.....	149	+ 1.3
1923.....	154	+ 3.3
1924.....	150	— 2.6
1925.....	159	+ 6.0
1926.....	151	— 4.9
1927.....	147	— 2.5

¹Table quoted from *Bulletin No. 440*, "Wholesale Prices 1890 to 1926," Bureau of Labor Statistics, U. S. Department of Labor, and memorandum on 1927 prices from same Bureau.

that they have moved irregularly. Sometimes they have changed slowly, sometimes rapidly. Movements in one direction have sometimes lasted several years and at other times have continued only a single year. The extent of these continuous irregular fluctuations is made clear by comparing the index numbers of various years.

Recognizing that there are more or less general shifts in prices, efforts have been made for a long time to measure these changes. The result is the development of "index numbers." People interested in the fascinating game of predicting future price changes frequently accept these imposing computations without diagnosing their contents. As a matter of fact, predicting future price movements on the basis of past changes is a dangerous game to play under any circumstances. It is especially so if one does not know just how index numbers of prices are made and exactly what they represent. If the price quotations cover only a small number of unimportant items or if the methods used in calculating are bad, the results, though carried out to the second decimal place and appearing to be very exact, may be entirely misleading and worse than nothing. The method most commonly used and misused is described here by Professor Fisher. Other methods which he regards as more precise are explained in great detail in his volume on index numbers.

THE MAKING OF INDEX NUMBERS¹

by Irving Fisher

Most people have at least a rudimentary idea of a "high cost of living" or a "low level of prices," but usually very little idea of how the height of the cost or the lowness of the level is to be measured. It is to measure such magnitudes that "index numbers" were invented.

There would be no difficulty in such measurement, and hence no need of index numbers, if all prices moved up in perfect unison or down in perfect unison. But since, in actual fact, the prices of different articles move very differently, we must employ some sort of compromise or average of their divergent movements.

If we look at prices as starting at any time from the same point, they seem to scatter or disperse like the fragments of a bursting shell. But just as there is a definite center of gravity of the shell fragments, so there is a definite average movement of the scattering prices. This average is the "index number." Moreover, just as the center of gravity is often convenient to use in physics instead of a list of the individual shell

¹ Adapted from *The Making of Index Numbers*, Pollak Foundation for Economic Research, Newton 58, Massachusetts. Third Edition, 1927, pages 2-3, 6, 15-17.

fragments, so the average of price movements, called their index number, is often convenient to use in economics.

Although index numbers are calculated by a wide variety of formulæ, they all fall under six types: the arithmetic, harmonic, geometric, median, mode, and aggregative. None of the six, except the simple arithmetic average of relative prices, is familiar to most people. In fact, the very word "average" means to most people only the arithmetic average. Let us, therefore, define this kind of average in order to differentiate it from the others.

The simple arithmetic average of a number of terms is their sum divided by the number of the terms. Thus to average 3 and 4 we divide their sum (7) by their number (2) and obtain $3\frac{1}{2}$ as the simple arithmetic average of 3 and 4.

To apply this sort of calculation to index numbers, let us take the following skeleton table of the prices of our 36 commodities for the two years 1913 and 1914:

THE SIMPLE ARITHMETIC INDEX NUMBER FOR 1914 AS
CALCULATED FROM 36 PRICES FOR 1913 AND 1914

No.	Commodity	Prices in Cents		Price Relatives
		1913	1914	$100 \times \frac{1914}{1913}$
1	Bacon, per lb.	12.36	12.95	104.77
2	Barley, per bu.	62.63	62.04	99.06
..
36	Oats, per bu.	37.58	41.91	111.52
				36) 3,467.36
				96.32
				Simple Arithmetic Index Number

The first two columns of figures give the actual prices, the last column gives the relative prices, found by calling each price in 1913 100 per cent, while the average of these is the index number sought.

Thus, to obtain the index number of these commodities for 1914, relatively to 1913 as the base, two steps are involved: first, to get the relation between each commodity's 1914 and its 1913, or base, price. This is a ratio. It is expressed in percentages and is called a relative price or "price relative." There is, thus, a price relative for bacon,

another price relative for barley, and so on—a price relative for each separate commodity. To obtain these price relatives is the first step to an index number and may be called “percentaging.” The second step is to average these relatives—and may be called “averaging the percentages.”

The first item on the list is bacon, the price of which in 1913 was 12.36 cents per pound and in 1914, 12.95 cents per pound, which is 4.77 per cent higher. That is, percentaging the prices of bacon, we find the price in 1914, relatively to 1913, to be $100 \times (12.95 \text{ divided by } 12.36)$, or 104.77 per cent. Likewise barley fell from 62.63 cents per bushel to 62.04, the latter being 99.06 per cent of the former. Thus 99.06 per cent is the price relative of barley (for 1914 relatively to 1913 taken as 100), and so on to the end, where oats rose in 1914 to 111.52 as compared with 100 taken as its price in 1913.

Having thus percentaged the prices into price relatives, we proceed to average the percentages. The simple arithmetic average of these price relatives, namely, of 104.77; 99.06;—111.52, is found by first taking their sum (3467.36) and then dividing this sum by their number (36). The result is 96.32 per cent, the desired simple arithmetical index number, giving the price level of 1914 as a percentage relatively to 100 in 1913 as the base of comparison. The base is the year for which each price is taken as 100 per cent.

The preceding calculation treats all the commodities as equally important; consequently, the average was called “simple.” If one commodity is more important than another, we may treat the more important as though it were two or three commodities, thus giving it two or three times as much “weight” as the other commodity.

A weighted index number of the aggregative type is used by the Bureau of Labor Statistics in the figures quoted in this chapter. Over four hundred commodity prices are used. The year 1913 is taken as a base and weights are assigned according to quantities sold in 1919.

For what purposes is such an index useful when we get it? A well-constructed index number may be put to uses for which it was never intended and so lead to absurd conclusions. The Bureau of Labor Statistics index has already helped us to answer certain general questions about the character and extent of recent wholesale price movements. Can it be used to settle specific problems? Can we pin our faith to such averages or must we examine particular cases?

Most of the problems arising out of price changes are due to differences in the extent to which various prices fluctuate. Wage earners strike for higher wages because they think the cost of living has risen faster than wage rates. Farmers complain that the prices of their

products have fallen more than those of manufactured products. Bondholders object to rising retail prices because their incomes do not increase in proportion. Would any index of the "price level," which might be constructed by combining wage rates, interest rates, cost of living, prices of farm and manufactured products, be useful in showing changes in relationships between different groups of prices? Does the index of wholesale prices of commodities throw any light on the changes which take place in the relation of one price to another?

The average wholesale price of cotton at New Orleans rose from 12.2 cents per pound in December, 1926, to 19.2 cents per pound in December, 1927, an increase of over one-third.² During the same period the index of wholesale prices rose only from 147.2 to 149.2, an increase of less than one-fiftieth.³ Further evidence that prices do not move in perfect harmony with one another may be found in the two selections below. One merely shows how differently the prices of farm products and of cloths and clothing have changed in recent years; the other

INDEX NUMBERS OF WHOLESALE PRICES OF FARM PRODUCTS AND CLOTHS AND CLOTHING, 1913 to 1926⁴

INDEX NUMBERS

Year	Farm Products	Cloths and Clothing
1913.....	100	100
1914.....	103	98
1915.....	104	98
1916.....	123	127
1917.....	190	175
1918.....	218	228
1919.....	231	253
1920.....	218	295
1921.....	124	180
1922.....	133	181
1923.....	141	200
1924.....	143	190
1925.....	158	189
1926.....	142	176

² *Wholesale Prices of Commodities for December 1927* (Revised Series), Bureau of Labor Statistics, U. S. Department of Labor, Government Printing Office, Washington, D. C., 1928.

³ Memorandum from Bureau of Labor Statistics, U. S. Department of Labor, January, 1928.

⁴ Quoted from *Bulletin 440* of the United States Bureau of Labor Statistics, Government Printing Office, Washington, D. C., 1926.

describes the ways in which certain groups of prices—such as retail and wholesale—usually behave during a period of rising prices.

LACK OF UNIFORMITY IN PRICE FLUCTUATIONS ⁵

(During a period of rising prices)

by Wesley C. Mitchell

OF COURSE the advance of prices is far from uniform. A few prices fall, a few remain constant, and of the many which rise some advance one or two, some one hundred or more per cent.

It has been shown that the trend of fluctuations is not the same in all parts of the system of prices. While all parts of the system feel the influence of a business revival, they respond to the stimulus with varying degrees of promptness and energy. The genuineness of these differences as phenomena characterizing a shifting of the price level is attested not only by the regularity with which they recur whenever business improves, but also by the fact that the divergences among the average fluctuations of the groups referred to are much wider than the divergences among general index numbers made by different hands.

Of such dissimilarities in the average price variations of groups of commodities, the following have been established: (1) retail prices rise less promptly and less considerably than wholesale prices of the same commodities; (2) the wholesale prices of finished products lag behind the wholesale prices of the same commodity in a partially manufactured state, and the latter prices in turn lag behind the prices of corresponding raw materials; (3) the wholesale prices of manufactured consumers' goods rise perhaps more promptly, but certainly less considerably, than the wholesale prices of manufactured producers' goods; and (4) the wholesale prices of raw mineral products respond to changes in business conditions with greater certainty and greater accuracy than do the wholesale prices of raw farm, animal, or forest products.

The difference between the average variations in the retail and wholesale prices of the same goods is due chiefly to the steadiness of certain important items of expense in conducting a retail shop. A shop-keeper's rent, wages, losses on bad debts, interest on fixed investment, depreciation charges, and the like do not rise promptly with the wholesale prices of his wares. Consequently he can maintain or even increase his profits on the business as a whole while raising his selling prices less than his buying prices have been raised. Therefore, the more rigorously competition constrains shopkeepers to defend their reputation for reasonable prices and fair dealing, the more certainly will retail prices lag behind wholesale prices on the rise.

Similar is the explanation of the differences between the average variations in the wholesale prices of the same goods at successive stages of

⁵ Adapted from *Business Cycles*, University of California Press, 1913, pages 461-462.

their progress from the state of raw materials to that of finished products. Manufacturing expenses, like retailing expenses, include important items which do not rise rapidly on the return of prosperity. Hence the more accurately selling prices are adjusted to total expenses of production, the more certainly will finished products lag behind partly-finished products and the latter behind raw materials when the price level is advancing.

Continual shifts in prices would be a nuisance for business calculations even if they took place at the same time and to the same degree in steel billets, silk handkerchiefs, interest rates, and the like. Since, as we have seen, prices do not move in that way, all sorts of difficulties arise. The following statement indicates what these difficulties are and what will be the central problems discussed in the two chapters following.

THE SIGNIFICANCE OF GENERAL PRICE MOVEMENTS

IF THE wheat farmer receives lower prices for his crop, while the prices of goods pictured in the catalog of his favorite mail-order house remain the same, sales by that mail-order house are likely to drop. Then the mail-order house must cut down its orders from other companies. These in turn must reduce their output. As a result, workmen are laid off and have less income to spend. Their demand for some of the things they ordinarily purchase is thereby reduced. In such fashion the effects of the lower wheat price may be felt throughout the whole economic system. Of course, it may happen that other conditions offset these effects so that prosperity continues in the cities. For instance, if most of the people live in cities they can sell their radios and automobiles to one another and prosper at the expense of the wheat grower because bread is cheap. Even in that case, however, those firms which had been selling most of their output to wheat farmers would be in bad positions. A change in the price of any important commodity or groups of commodities may easily upset the whole economic situation. Profits, production, employment, and trade may all be seriously affected. When people are so thoroughly dependent on one another, a change in price relationships is likely to interfere with economic activity.

The whole problem of adjusting supply to demand, of producing amounts of goods that can be sold at fair profits, of keeping men and machines busy all the time, is very much further complicated in the case of some commodities by the fact that changing prices lead to speculation. If a wholesaler sees a chance to buy a product at \$3.00 which he expects would cost him \$3.25 a month later, he is likely to purchase large quantities, much more than he expects to sell immediately to retailers. The manufacturer may then easily overestimate the consumption of his products, expand his plant, hire more men, and produce more than ever. If,

for some reason, prices stop rising or start falling, the speculators will be anxious to unload their stock of goods quickly. This sudden addition to supply may cause prices to drop very sharply. Moreover, wholesalers will not be ordering additional goods from manufacturers. Then the enlarged plants will be idle, workmen will be thrown out of jobs. That will only make matters worse for the business world at large. Hard times will prevail. Here is one way to account for the fact that every few years industrial activity is very much curtailed. Although this explanation makes the situation seem much simpler than it really is, periods of rising prices are actually accompanied very often by speculation and followed by its serious results. The inquiring reader may ask what started prices of many products rising in the first place. To answer that question would be to tell the story of the "business cycle" which will be presented in the next chapter.

Not only do widespread price fluctuations interfere seriously with the smooth operation of the industrial system, but they also play curious tricks on people who borrow and lend, and on those who are seemingly secure with their fixed incomes. A man who borrowed \$1,000 in 1914 and repaid the lender in 1920 returned, to be sure, the same number of dollars, but these dollars would purchase at wholesale only about 40 per cent as much as they would in 1914 when they were borrowed. The borrower was fortunate in that case. If prices had fallen instead of rising, the lender would have reaped an unexpected gain at the expense of the borrower. This element of risk would be serious even if people considered it in making contracts. But generally people do not think about the matter, as evidenced by the general notion that bonds carrying a fixed income are free from risk of any sort. Many thrifty people put their savings in the bank, never dreaming that their purchasing power may decrease too rapidly to be offset by the slow accumulation of the interest. Men who accept salaried positions do not stipulate in their contracts that a rise in cost of living shall mean an increase in salary. Consequently, when the prices of the things they want to buy are rising they feel the pinch of "the high cost of living." And when prices are falling they may be in danger of losing their jobs because "business is slack."

QUESTIONS

1. "The prices of automobiles and electric power went down steadily for a certain period and yet the index numbers show that prices increased steadily during that same period. There must be something the matter with the index numbers." So?
2. Using index numbers, draw a line graph to show changes in the general level of prices at wholesale during the 1890-1926 period. What chief movements do you note? Would the monthly figures change the picture much?

3. Are index numbers used only to measure price changes?
4. "As long as the price level is as unstable as a weather vane, all investment is a gamble." Comment.
5. Would a given change in the price level be more or less serious now than in colonial days? Why?
6. How does a rise in retail prices affect the salaried man? the wage-earner? What is the difference between a salary and a wage?
7. "Down with the high cost of living!" consumers shouted in 1919. During the next two years retail prices fell sharply. Did that improve the lot of most consumers? Explain.
8. Outline the nature of the study you think would have to be made to test the validity of the statement that "a wage of \$2 a day will purchase as much in a Southern textile center as a \$3 wage will in New England."

C H A P T E R X V

BUSINESS CYCLES

THIS chapter will have to do with the unceasing ebb and flow of business activity with its "good times," crises, and "bad times"—all constituting the business cycle. The chapter will include:

- (1) An account of certain events in the business world in 1920 and 1921.
- (2) A descriptive analysis of a business cycle.
- (3) An indication of the lack of uniformity in business cycles.
- (4) A note on the effects of the cycle on different classes of people.
- (5) A discussion of the use of business forecasts and of other "ways out" for the individual enterprise.
- (6) A survey of various methods proposed to control the business cycle.

IN THE fall of 1921 President Harding called a conference to consider a very acute unemployment situation. During the course of that conference it is estimated that between three and a half and five and a half million men were out of work. Most of these men wanted to work. Many of them were hungry. Some of them starved while searching vainly for jobs.

While these men beat the streets hunting for jobs, machines they might have operated stood idle. Materials which might have been utilized by the machines piled up on farms and rotted. Farmers in the Middle West burned corn for fuel because it was not worth hauling to town, while people in the cities felt the bitter gnawings of hunger. People were going about ragged while farmers despaired because they could not sell their wool, and clothing manufacturers deplored the idleness of their machines.

There was no diabolical plot on the part of employers to keep their employees from working. Neither did a sudden wave of shiftlessness overcome the working population and cause a liberal part of it to take to the park benches instead of to the factory doors. Something more than a whim or accident was responsible for an economic paralysis of such dimensions. What was it? The war? Undoubtedly the war had a great deal to do with it. The business situation of 1920 and 1921 worked itself out in a post-war setting and was certainly affected by that fact. But if the root cause were the war, why did not business paralysis and unemployment appear on a large scale immediately after

the signing of the armistice, instead of holding off for two years? Furthermore, there was no war to account for the similar situation in 1907, in 1893 and in the other years famous for disastrous economic standstill.

The fact that the same phenomenon has occurred frequently before provides a clue to the mystery. Business paralyses or sudden turns for the worse, usually called crises, have often occurred in the history of our industrial system. They are so dramatic and sometimes so devastating that it is easily understood why attention was first drawn to them rather than to the ceaseless ebb and flow of economic activity which is called the "business cycle." Now business conditions are being studied and tested at all times. Alternations of "good times" and "bad times" are seen to be phases of a continuous fluctuation in business activity, resting on a multitude of changing factors. This existence of clearly recognized business cycles is perhaps the clearest evidence that our present industrial system is extremely dynamic. In fact, it might be said that the study of business cycles is a study of that system in its dynamic or changing aspect.

Before proceeding with a general treatment of business cycles it might be well to look at the situation of 1921 in more detail. It is of interest in itself and also provides a concrete point of departure for subsequent material of a more general nature.

THE POST-WAR CYCLE¹

by W. Jett Lauck

CONTRARY to the expectation of the great majority of observers, the advance in prices which assumed enormous proportions toward the end of the war period, caused by scarcity and by inflation, did not stop when the armistice was signed. After a small decline the index number of wholesale prices in this country resumed its upward swing and continued to rise throughout the year 1919 and until May, 1920. Why this advance?

Reinforced by the wisdom of hind-sight, it is not difficult to interpret the events of that period. Goods were scarce; production relaxed after the tremendous pressure under which every one labored during the war, and relaxation of effort was naturally inevitable. The aggregate production of goods in the United States in 1919 was smaller than in 1920, in spite of the fact that four million men were returning to civil life from the army. War expenditures, however, continued at a practically uninterrupted rate. It took as much money to demobilize the army and to liquidate our war contracts as it did to keep the army fighting and to provide for its maintenance. Consequently, the demand

¹ Adapted from an exhibit before the U. S. Railroad Labor Board, 1921.

for credit and currency continued. The Government was in the market bidding for goods and for means to pay for the goods. Our Allies were still unable to resume normal production and were demanding enormous quantities of supplies from this country. Our own plant showed signs of disrepair and neglect. Our railroads were running down, our houses were largely unpainted and in many cases unbuilt, our appetites were longing for a free satisfaction of those wants which the stern discipline of war had kept in control. The soldiers returned to civil life with money in their pockets, small amounts to be sure, but in many cases larger than they had ever handled before, were in the market bidding for civilian out-fits and for civilian entertainment. A significant fact of the early months of 1920 is that the earlier and more pronounced advances in price are noted for consumers' goods rather than for raw material or producers' goods. The United States, still technically at war, was celebrating peace by giving a nation-wide party. In considering this upward swing four things must be remembered.

First, an upward trend in prices feeds itself and accumulates momentum as it proceeds. The manufacturer or the merchant hastens to purchase large supplies both because he expects them to advance in price while in his hands and because he wishes to buy them before they rise still more in price. The consumer, even the sober, thrifty consumer, who feels that he needs an article or will need it in a comparatively short time, makes an effort to purchase it at once before the price advances still further. The speculator, who in the aggregate is not an enormously important influence, nevertheless adds to the general trend by buying freely and in large quantities in order to dispose of his purchases when still higher levels are reached. The profiteer is—the nation. Every person in this country, practically speaking, was either deliberately or involuntarily buying on a rising market in order to reap a profit either if he was acting as a consumer, by saving the higher price he would have to pay later, or if he was acting as merchant or manufacturer, by disposing of his purchase at a profit. This is not an exoneration of the deliberate criminal profiteer who manipulated goods or made use of exceptional conditions to extort exorbitant prices. There were plenty of them. But it is a plain statement of the fact that, when prices are advancing, the entire nation innocently, inevitably, turns into profiteers.

Secondly, one needs perhaps to mention the fact that in the general prosperity there were victims as well as beneficiaries. All persons with fixed salaries, all owners of bonds and other securities with fixed rates of return were suffering losses and, in many cases, acute want during the boom period. They had nothing to sell and their sources of income came to them in shrinking dollars which were less and less adequate to meet their needs.

Thirdly, failures were few and far between during the boom. It takes little wisdom to make money in a rising market. Any person who laid in a stock of supplies inevitably made a profit when he disposed of them

at a higher price. This in itself gave the superficial appearance of solidity because, to be sure, failures were rare. But as a matter of fact the lack of failures represented an accumulation of weakness, because a large number of firms which under more normal conditions would be forced to discontinue business on account of unfavorable location or poor management were being carried along by the wave of prosperity, regardless of the economic soundness of their condition, and were forming a constantly growing weak link in the chain, which would help to accelerate the crash when the turn came.

Fourthly, credit was expanding. Loans of the banks of the United States aggregated 6 billions more in July, 1920, than in July, 1919. A substantial part of these loans was tied up in European credits which later proved the cause of grave embarrassment. These credits would come to the banks in many cases under the guise of legitimate demands of American business. For the banks' customers would borrow money for their own needs, which they might not have had to borrow if they did not have funds tied up in European credits. Much credit was tied up in speculation in the hoarding of commodities. There is no way of determining the amounts of these credits. The credit information available is scanty and does not afford the necessary data for interpreting events.

Then came the crash. The credit structure of the nation had reached a point beyond which it could not safely go. The reserve ratio of the Federal Reserve Banks was only slightly above the minimum of 40 per cent. These banks were no longer able to accommodate their members when requested to do so. The Federal Reserve Board, realizing the situation, had raised the discount rate on several occasions and in May, 1920, raised it to 7 per cent in the most important financial districts. That was one cause of the turn in events. But more potent in all likelihood was the fact that the willingness and the ability to buy on the part of the masses of the people were becoming exhausted. The short-lived appearance of overall clubs was not an important influence but a very significant symptom of the conditions prevailing throughout the nation. The discharged soldiers' money had been spent. The limit of endurance of the persons with incomes was reached. A spontaneous and widespread buyers' strike took place. This phrase coined at the time is, however, not accurate. There was little concerted action and less deliberation in the falling off of purchases. People ceased to buy because they did not have the wherewithal. The difficulty of collecting from European debtors entered as a factor into the situation and it entered in several ways. Not only did the credits granted by the banks in most cases become frozen, thereby reducing the amount of further available credit, but many of the neutral countries, especially in South America, which had counted on exporting large quantities of agricultural products to Europe, found that there was no cash market there and tried to dispose of these goods in the United States with a consequent

accumulation of raw materials in this country. Where the shock was first felt it is hard to determine. It is generally believed that the beginning came in Japan, where the silk market collapsed and became thoroughly demoralized early in the year. A serious collapse of prices in Germany soon followed.

What were the particular events that started the ball rolling it is hard to say, but there is no questioning the fact that, once the movement started, it gained momentum at an accelerated rate which it is not difficult to understand in view of the conditions described above. A slight degree of nervousness on the part of speculators would induce them to place their accumulated stocks on the market. Their action would affect prices and would induce others to follow. Bank loans based on stocks of goods would be called, with the result that still more goods would be offered for sale. With the trend downward having begun, forward purchases would cease, as both manufacturers and dealers would be afraid to buy in large quantities for fear that their inventories would shrink in value on their hands. Consumers would delay their purchases in the hope that lower price levels would soon be reached. Deferred failures, if one may so refer to them, would begin to materialize. Mushroom growths, fostered by the gentle climate of inflation, would wither and perish under the cold winds of deflation. The movement would gain momentum from all of these sources and, as a matter of fact, the price declines between May, 1920, and February, 1921, are by far the greatest ever witnessed in the history of the world.

The worst sufferers from the crash were the producers of agricultural goods. They had purchased materials at top prices, their costs were high and their products were hardest hit by the decline. The reason for the greater decline in agricultural products is not far to seek. Cotton and wheat and wool are articles whose price is fixed in the world market and, therefore, reflects not only the bad conditions in the United States but the even worse conditions prevailing elsewhere in the world. Manufacturers who had purchased stocks of goods at big prices were also in a dangerous condition, and wholesale and retail merchants were in many cases very hard hit by the decline in prices.

* * *

The following statistical statement shows the extent to which employment declined in various lines during this period just discussed. It is based upon hours of actual work in different establishments. The first column of the table deals with the general employment situation. The other figures indicate that the larger business units and their employees were more seriously affected than the smaller firms. It will be noticed that the only industry which did not suffer a falling-off in employment during 1920-1922 was that of the miscellaneous hand trades, and even in that case there was a reduction in certain of the establishments, counter-balanced however by an increase in others.

DECLINE IN THE VOLUME OF EMPLOYMENT
FROM THE PEAK OF PROSPERITY IN 1920 TO THE TROUGH OF DEPRESSION
IN 1921-1922 ²

	All establishments, per cent decline	Establish- ments with 0-20 employees, per cent decline	Establish- ments with 21-100 employees, per cent decline	Establish- ments with over 100 employees, per cent decline
All industries.....	16.50	3.08	13.84	28.23
All factories.....	29.97	8.21	19.21	38.56
Steam railways.....	29.68	"	"	29.68
Extraction of minerals.....	29.66	"	"	30.18
Building and construction.....	18.92	14.66	"	"
Finance.....	7.14	0.00	0.00	25.58
Transportation other than railways.....	6.77	3.72	9.80	8.17
Wholesale trade.....	5.64	0.00	12.31	7.77
Public and professional service.....	4.57	"	"	"
Domestic and personal service.....	4.11	5.40	4.48	3.92
Agriculture.....	3.18	2.15	"	"
Retail trade.....	2.75	1.31	4.66	10.84
Hand trades other than building.....	0.00	2.11	4.67	"

* Reports received from less than 20 enterprises. The comparisons are based upon quarterly reports from 9,289 enterprises, and cover the full years 1920 and 1921, and the first three months of 1922.

Efforts to explain the underlying causes of the ebb and flow of business activity, of which one small sample has just been given, range all the way from astronomical observations to speculation about what is going on inside the mind of the business man. One theory asserts that the planet Venus periodically interferes with solar radiation to the earth, thus affecting rainfall and the size of crops, and through these factors finally causes the familiar fluctuations in business activities. Other theories look to the speed at which inventions are made, the tendency to save, the psychology of the business man, the rate of interest charged by banks, *et cetera*. Theorists usually take one factor or one set of factors and make out a very plausible case to demonstrate how these factors are sufficient to explain the rhythm of business activity.

One seeking to understand the recurrent ebb and flow of economic activity characteristic of the present day finds these numerous explanations both suggestive and perplexing. All are plausible, but which

² Adapted from *Employment, Hours, and Earnings in Prosperity and Depression, United States, 1920-1922*, by Willford I. King, National Bureau of Economic Research, New York, second edition, 1923, pages 55-58, 60. (Adaptation by W. C. Mitchell.)

is valid? None necessarily excludes all the others, but which is the most important? Each may account for certain facts; does any one account for all of them? Or can these rival explanations be combined in such fashion as to make a consistent theory that is wholly adequate?

There is slight hope of getting answers to these questions by a logical process of proving and criticizing the theories. It is by a study of the facts that the theories must be tested. To date, the search for facts has resulted in the writing of many short articles and monographs of a statistical nature. One writer will analyze the physical volume of production by means of a series of tables and charts while another will make a careful study of the relation of interest rates to the general price level over a period of years. This type of work is quite different from the more general theorizing which preceded it.

Professor Wesley Mitchell has combined statistical research with generalized work of a larger scope. His own theory, or rather "descriptive analysis" (to use his own term), is built upon a large amount of statistical study which it is necessary to omit from the outline of his conclusions given below.

A DESCRIPTIVE ANALYSIS OF THE BUSINESS CYCLE ³

by Wesley C. Mitchell

THE theory of the business cycles summarized below is a descriptive analysis of the processes of cumulative change by which a revival of activity develops into intense prosperity, by which this prosperity engenders a crisis, by which crisis turns into depression, and by which depression, after growing more severe for a time, finally leads to such a revival of activity as that with which the cycle began.

The analysis rests primarily upon an elaborate statistical inquiry into the phenomena of recent cycles in the United States, England, France, and Germany. There is always a danger in presenting a summary of conclusions like the one which follows, that a plausible summary may carry too much weight. Only by putting any theory to the practical test of accounting for actual business experience can its value be determined. The case for the present theory, therefore, and also the case against it, is to be found not in the easy summary, but in the difficult material which has preceded, or, better still, in an independent effort to use it in interpreting the ceaseless ebb and flow of economic activity.

With whatever phase of the business cycle analysis begins, it must take for granted the conditions brought about by the preceding phase, postponing explanation of these assumptions until it has worked around the cycle and come again to its starting point.

A revival of activity, then, starts with a legacy from depression: a

³ Adapted from *Business Cycles*, The University of California Press, 1913.

level of prices low in comparison with the prices of prosperity, drastic reductions in the costs of doing business, narrow margins of profit, liberal bank reserves, a constructive policy in capitalizing business enterprises and in granting credits, moderate stocks of goods, and cautious buying.

Such conditions are accompanied by an expansion in the physical volume of trade. Though slow at first, this expansion is cumulative. In time, an increase in the amount of business which grows more rapid as it proceeds will turn dullness into activity. Left to itself this transformation is effected by slow degrees; but it is often hastened by some propitious event, such as exceptionally profitable harvests, or heavy purchases of supplies by the government.

A partial revival of industry soon spreads to all parts of the business field. For the active enterprises must buy materials and current supplies from other enterprises, the latter from still others, etc. Meanwhile all enterprises which become busier employ more labor, use more borrowed money, and make higher profits. There results an increase in family incomes and an expansion of consumers' demands, which likewise spreads out in ever-widening circles. Shopkeepers pass on larger orders to wholesale merchants, manufacturers, importers, and producers of raw materials. All these enterprises increase the sums they pay to employees, lenders, and proprietors. In time the expansion of orders reaches back to the enterprises from which the initial impetus was received, and then the whole complicated series of reactions begins afresh at a higher pitch of intensity. All this while the revival of activity is instilling a feeling of optimism among business men.

The cumulative expansion of the physical volume of trade stops the fall in prices and starts a rise. For when enterprises have in sight as much business as they can handle with existing facilities, they stand out for higher prices on additional orders. This policy prevails because additional orders can be executed only by breaking in new hands, starting new machinery, or buying new equipment. The expectation of its coming hastens the advance. Buyers are anxious to secure large supplies while the quotations continue low, and the first signs of an upward trend bring out a rush of orders.

The rise of prices spreads rapidly, for every advance puts pressure on someone to recoup himself by advancing the prices of what he has to sell. The resulting changes in price are far from even: retail prices lag behind wholesale, and the price of finished products behind the price of their raw materials. Among the last-mentioned, the prices of mineral products reflect changed business conditions more regularly than do the prices of forest and farm products. Wages rise more promptly, but in less degree, than wholesale prices; interest rates on long loans always move sluggishly in the earlier stages of revival, while the prices of stocks both precede and exceed commodity prices on the rise.

In a great majority of enterprises larger profits result from these divergent fluctuations coupled with the greater physical volume of sales. For while prices of raw materials and of bank loans often rise faster

than selling prices, the prices of labor lag far behind, and the prices making up supplementary costs are mainly stereotyped by old agreements.

The increase of profits, under the spell of optimism, leads to a marked expansion of investments. The heavy orders for machinery, the large contracts for new construction, etc., which result, swell still further the physical volume of business, and render yet stronger the forces which are driving prices upward.

Indeed, the salient characteristic of this phase of the business cycle is the cumulative working of the various processes which are converting a revival of trade into intense prosperity. Not only does every increase in the volume of trade cause other increases, every convert to optimism make new converts, and every advance in price furnish an incentive for new advances; but the growth of trade also helps to spread optimism and to raise prices, while optimism and rising prices support each other. Finally, the changes going forward swell profits and encourage investments, while high profits and heavy investments react by augmenting trade, justifying optimism, and raising prices.

While the processes just sketched work cumulatively for a time to enhance prosperity, they also cause a slow accumulation of stresses within the balanced system of business—stresses which ultimately undermine the conditions upon which prosperity rests.

Among these is the gradual increase in the cost of doing business. The decline in supplementary costs per unit ceases when enterprises have secured all the business they can handle with their standard equipment, and a slow increase in these costs begins when the expiration of old contracts makes necessary renewals at higher rates. Meanwhile, prime costs rise at a relatively rapid rate. The price of labor rises both because of an advance in nominal wages and because of higher rates for overtime. More serious is a decline in the efficiency of labor because of the employment of undesirables, and because crews cannot be driven at top speed when jobs are more numerous than men. The prices of raw material rise faster on the average than the selling prices of products. Finally, numerous small wastes creep in when managers are hurried by the press of orders.

A second stress is the accumulating tension of investment and money markets. The supply of funds available at the old rates fails to keep pace with the swelling demand. It becomes difficult to negotiate new issues of securities except on onerous terms, and men of affairs complain of the "scarcity of capital." Nor does the supply of bank loans, limited by reserves, grow fast enough to keep up with the demand. Active trade keeps such an amount of money in circulation that the cash left in the banks increases rather slowly. On the other hand, the demand for loans grows not only with the physical volume of trade, but also with the rise of prices, and with the desire of men of affairs to use their own funds for controlling as many businesses as possible.

Tension in the bond and money markets is unfavorable to the continuance of prosperity, not only because high rates of interest reduce

the prospective margins of profit, but also because they check the expansion of the volume of trade out of which prosperity develops. Many projected ventures are relinquished because borrowers conclude that interest would absorb too much of their profits.

The group producing industrial equipment suffers especially. In the earlier stages of prosperity this group enjoys exceptional activity. But when the market for bonds becomes stringent and the cost of construction high, business enterprises defer the execution of plans for extending old or erecting new plants. As a result, contracts for this kind of work become less numerous as the climax of prosperity approaches. Then the steel mills, foundries, machine factories, lumber mills, construction companies, etc., find their orders for future delivery falling off.

The larger the structure of prosperity, the more severe become these internal stresses. The only effective means of preventing disaster while continuing to build is to raise selling prices time after time high enough to offset the encroachment of costs upon profits, and to keep investors willing to contract for fresh industrial equipment.

But it is impossible to keep selling prices rising for an indefinite time. In default of other checks, the inadequacy of cash reserves would ultimately compel the banks to refuse a further expansion of loans on any terms. But before this stage has been reached, the rise of prices is stopped by the consequences of its own inevitable inequalities. These become more glaring the higher the general level is forced; after a time they threaten serious reductions of profits to certain business enterprises, and the troubles of these victims dissolve that confidence in the security of credits with which the whole towering structure of prosperity has been cemented.

In certain lines in which selling prices are stereotyped by law, by contracts for long terms, by customs, or by business policy, selling prices cannot be raised to prevent a reduction of profits. In other lines prices are always subject to the incalculable chances of the harvests. In some lines the recent construction of new equipment has increased the capacity for production faster than the demand for the wares has expanded under the repressing influence of high prices. The unwillingness of investors to let fresh contracts threatens loss not only to the contracting firms but to the enterprises for which they buy materials. Finally, the success of some enterprises in raising prices fast enough to defend their profits aggravates the difficulties of the men who are in trouble.

As prosperity approaches its height, then, a sharp contrast develops between the business prospects of different enterprises. Many are making more money than at any previous stage in the business cycle. But an important minority faces the prospect of declining profits. The more intense prosperity becomes, the larger grows this threatened group. In time, these conditions bred by prosperity will force radical readjustment.

Such a decline of profits threatens consequences worse than the failure to realize expected dividends. For it arouses doubt about the future of outstanding credits. Business credit is based primarily upon the cap-

italized value of present and prospective profits, and the volume of credits outstanding at the zenith of prosperity is adjusted to the great expectations which prevail when affairs are optimistic. The rise of interest rates has already narrowed the margins of security behind credits by reducing the capitalized value of given profits. When profits begin to waver, creditors begin to fear lest the shrinkage in the market rating of business enterprises which owe them money will leave no adequate security for repayment. Hence they refuse renewals of old loans to enterprises which cannot stave off a decline in profits, and press for settlement of outstanding accounts.

Thus prosperity ultimately brings on conditions which start a liquidation of the huge credits which it has piled up. And in the course of this liquidation prosperity merges into crisis.

Once begun, the process of liquidation extends rapidly, partly because most enterprises called upon to settle put similar pressure on their own debtors, and partly because news presently leaks out and other creditors take alarm.

While this financial readjustment is under way, the problem of making profits is subordinated to the more vital problem of maintaining solvency. Business managers nurse their financial resources rather than push their sales. In consequence, the volume of new orders falls off rapidly. The prospect of profits is dimmed. Expansion gives place to contraction. Discount rates rise higher than usual, securities and commodities fall in price, and working forces are reduced. But there is no epidemic of bankruptcy, no run upon banks, and no spasmodic interruption of ordinary business processes.

Crises, however, may degenerate into panics. When the process of liquidation reaches a weak link in the chain of interlocking credits and the bankruptcy of some conspicuous enterprise spreads unreasoning alarms, the banks are suddenly forced to meet a double strain—a sharp increase in the demand for loans and in the demand for repayment of deposits. If the banks meet both demands, the alarm quickly subsides. But if many solvent business men are refused accommodation at any price, and depositors are refused payment in full, the alarm turns into a panic. A restriction of payments by the banks gives rise to a premium upon currency, to hoarding of cash, and to the use of various unlawful substitutes for money. A refusal by the banks to expand their loans, still more a policy of contraction, sends interest rates up to three or four times their usual figures, and causes forced suspensions and bankruptcies. There follow appeals to the government for extraordinary aid, frantic efforts to import gold, the issue of clearing-house loan certificates, and an increase of bank-note circulation as rapid as the existing system permits. Collections fall into arrears, domestic-exchange rates are dislocated, workmen are discharged because employers cannot get money for pay-rolls or fear lest they cannot get pay for goods when delivered, stocks fall to extremely low levels, even the best bonds decline some-

what in price, commodity markets are disorganized by sacrifice sales, and the volume of business is violently contracted.

There follows a period during which depression spreads over the whole field of business and grows more severe. Consumers' demand declines in consequence of wholesale discharge of wage-earners. With it falls the business demand for raw materials, current supplies and equipment. Still more severe is the shrinkage in the investors' demand for construction work of all kinds. The contraction in the physical volume of business which results from these shrinkages in demand is cumulative, since every reduction of employment causes a reduction in consumers' demand, thereby starting again the whole series of reactions at a high pitch of intensity.

With this contraction goes a fall in prices. For when current orders are insufficient to employ the existing equipment, competition for business becomes keener. This decline spreads through the regular commercial channels which connect one enterprise with another, and is cumulative, since every reduction in price facilitates reductions in other prices, and the latter reductions react to cause fresh reductions at the starting point.

The fall in prices is characterized by certain regularly recurring differences in degree. Wholesale prices fall faster than retail, and the prices of raw materials faster than those of manufactured products. The prices of raw mineral products follow a more regular course than those of forest or farm products. Wages and interest on long-time loans decline in less degree than commodity prices. The only important group of prices to rise is high-grade bonds.

The contraction in the volume of trade and the fall in prices reduce the margin of present and prospective profits, spread discouragement, and check enterprise. But they also set in motion certain processes of readjustment by which the depression is overcome.

The prime costs of doing business are reduced by the fall in prices of raw material and of bank loans, by the marked increases in the efficiency of labor which come when employment is scarce, and by closer economy by managers. Supplementary costs are reduced by reduction of rentals and refunding of loans, by writing down depreciated properties, and by admitting that a recapitalization has been effected on the basis of lower profits.

While costs are being reduced, the demand for goods begins slowly to expand. Accumulated stocks left over from prosperity are exhausted, and current consumption requires current production. Clothing, furniture and machinery are discarded and replaced. New tastes appear among consumers and new methods among producers, giving rise to demand for novel products. Most important of all, the investment demand for industrial equipment revives. Capitalists become less timid as the crisis recedes into the past, the low rates of interest on long-time bonds encourages borrowing, and contracts can be let on most favorable conditions.

Once these forces have set the physical volume of trade to expanding, the increase proves cumulative. Business prospects become gradually brighter. Everything awaits a revival of activity which will begin when some fortunate circumstance gives a fillip to demand, or, in the absence of such an event, when the slow growth of the volume of business has filled order books and paved the way for a new rise in prices. Such is the stage of the business cycle with which the analysis begins, and, having accounted for its own beginning, the analysis ends.

Professor Mitchell would be the last to insist that this description of the typical features of the business cycle would apply in every detail to each actual cycle. A selection from his more recent book on business cycles makes clear some of the ways in which cycles have differed from one another in the recent history of this country. The differing characteristics of some of the speculative outbursts which have characterized the shifting tide of business in this country and given it one of its most dramatic aspects are then indicated by a brief historical survey.

DISTINCTIVE VARIATIONS IN BUSINESS CYCLES ⁴

by W. C. Mitchell

As ONE analyzes successive business cycles in various ways one finds evidence, even in the bleak statistical records, that each cycle has special characteristics of its own, or, rather, a special combination of characteristics. Strictly speaking, every business cycle is a unique historical episode, differing in significant ways from all its predecessors, and never to be repeated in the future. As a contribution to our general understanding of business cycles, we may note briefly some of the salient characteristics of the American cycles of 1897 to 1923.

(1) Rising slowly from the low point of 1897, business had not attained a very high level when it was interrupted by the mild reaction of 1900. As in 1890, foreign difficulties seem to have been largely responsible for the recession. The period of contraction was both brief and mild.

(2) The cycle of 1900-1904 contained the Northern Pacific corner of 1901, and the peculiar "rich-man's panic" of 1903. In financial circles the fluctuations were of great amplitude. But business of other sorts was affected relatively little.

(3) Perhaps better than any other case in our period, the fluctuations of 1904-1908 answer to the generalized conception of a business cycle presented in the theoretical treatises. From the depression of 1904, business made a fine recovery in 1905, maintained a high pitch of prosperity for some two years, passed through a severe crisis in the autumn

⁴ Adapted from *Business Cycles, the Problem and its Setting*, pages 354-357. Reprinted by permission of the National Bureau of Economic Research and the author.

of 1907, and plunged into a new depression in 1908. All the familiar phenomena appeared in standard succession and sharply defined.

(4) and (5) The next two cycles (1908-11 and 1911-14), on the other hand, were mild affairs. While the revival from the depression of 1908 was vigorous, it did not lead to a boom; the recession in 1910 was not sharp, the depression of 1911 was not severe, and the succeeding period of expansion of 1912-13 was terminated early by another mild recession. But the depression which closed the second of these cycles gained dramatic intensity when it was accentuated by the outbreak of war at the end of July, 1914.

(6) Of course the war-time cycle of 1914-18 was distinguished by unusual features—extraordinary price fluctuations, a not less extraordinary shift in the character of production, extreme scarcity of labor, abundance of loan funds, and, toward the end, by government intervention in business on an unprecedented scale.

(7) Hardly less exceptional was the first post-war cycle of 1918-21. After the brief and mild depression ushered in by the Armistice of November, 1918, business started on a boom so sudden that the period which can be labeled "revival" was very brief. Again the price fluctuations were extremely violent. The crisis was of exceptional severity so far as industry was concerned, and while the Federal Reserve System bore the financial strain with marked success, the subsequent depression was one of the worst in American experience. Yet one who realizes how profoundly economic activities in the United States were affected by the Great War, from the time when its sudden onset shattered confidence to the time when industry won back to a peace basis, must wonder that it altered the usual round of business cycles so little.

(8) During the cycle of 1921-1924, American business gradually returned to more settled conditions. While price fluctuations continued greater than they had been from 1878 to 1914, the price system attained a new equilibrium. After a rather slow recovery from the depression of 1921, business had a short period of almost feverish activity early in 1923, suffered a check, recovered in the opening months of 1924, and then entered upon a sharper decline.

(9) From this trough in the middle of 1924 we may date the beginning of the cycle in the later stages of which this account is written.

BULL MARKETS AND BEAR MARKETS ⁵

by Alexander D. Noyes

"BULL markets" and "bear markets," meaning a gradual and irregular rise or fall in prices as the country's business outlook seems to Wall Street to be growing better or worse, are of frequent occurrence. Periodical movements of that sort are looked upon only as the orderly ebb and flow of the financial tide. At widely separated intervals, however,

⁵ Adapted from an article in the *New York Times*, November 15, 1925.

there are times when the rise in stock prices, beginning deliberately like the others, gathers such support from an excited speculative public that eventually the market becomes uncontrollable; that prices of stocks lose all relation to earnings and dividends and the business outlook; that the speculative army buys with borrowed money for a further rise, merely because prices have risen so far already; that no end to the advance seems possible; and that even Wall Street asserts that there is nothing which can stop an indefinitely continuing upward movement.

No market of the kind was ever created without some such direct appeal to the speculative imagination. But behind this speculative influence there has always been a larger influence, arising largely from the financial condition of the outside public itself, from whom the speculative buying orders pour into the stock market. In order to create such a market, this public must have not only the requisite spirit of confidence but the actual personal resources. Therefore, movements of the kind usually occur not only when business is reviving and the financial outlook improving but when business is large and is actually making and accumulating money by increased personal earnings or by close economies.

In its earlier stages, what the Stock Exchanges call a "big bull movement" has always been explainable by financial causes which have operated legitimately to change an investment market. Even with what are classified as the celebrated speculative illusions of the past, this statement will hold good. The "Mississippi Bubble," usually referred to as the maddest exploit in speculative history, was actually based on the obtaining for French investors, through a company with a capital stock originally of 100,000,000 livres, or about \$20,000,000, the exclusive privilege of trading on the Mississippi and Ohio Rivers. The "South Sea Bubble" of 1720, almost equally celebrated in London's financial history, undertook to care for the British national debt of £10,000,000, in exchange for which service the company obtained a monopoly of trade in the South Sea region which now contains the British territories of Australia and New Zealand.

Most of our own speculative manias of the '70s and '80s were, so to speak, personally conducted, with the "bull leader" in plain sight of the general public. William H. Vanderbilt and Jay Gould used to feed the flame with reiterated public statements about the prospects of a further rise in prices.

During recent years this personal element has been far less in evidence on such occasions; partly because of the magnitude and scope of the bull movements and the great amount of capital required to accumulate stocks in the course of professional manipulation, but partly also because of a certain disadvantage of recognized individual leadership. When, at the height of Wall Street's greatest speculative craze of the '80s, a rumor ran that Jay Gould was selling out on the public, Gould arranged for a committee to examine his safe, see for themselves that his holdings of share certificates were intact, and report the same to the general public. But Wall Street was so far from being deceived by this transparent

device that the market broke much more violently on the announcement of the visitation; it was quite universally accepted as an acknowledgment of weakness.

The putting-up of prices by 10 to 15 points in a day, such exploits as the recent advancing of United States Steel to 10 points in two days, with a single day's transactions in the stock equal to the ordinary dealings of a full week, are ascribed by Wall Street not to any individual but to groups and syndicates of wealthy speculating capitalists, known to Wall Street as "pool manipulators." It is, of course, their purpose to sell out to the public as nearly as possible at the highest prices.

During the last quarter-century there have been only four of what Wall Street calls its "major bull movements" and what the general public calls a speculative mania. Frequently during this period a movement with speculation rising to huge proportions would be interrupted by violent downward reaction, after which the speculation would be renewed on an even more extensive scale.

The four occasions have been (1) the after-war Wall Street "boom" of 1919, which had two stages, one in the Spring of that year and another in the Autumn, with a two months' break in prices between them; (2) the war boom itself, which lasted from the Spring of 1915 well into December, 1916, similarly with extensive intervals of reacting prices; (3) the persistent bull market of 1905 and 1906, occurring between the so-called "rich men's panic" of 1903 and the great financial crisis of 1907; and (4) the most spectacular craze of all, which reached its real climax in the Spring of 1901, but which really included the prolonged speculation for the rise in 1899 and the series of wild and spasmodic advances in the Stock Exchange of 1902.

While each of these celebrated speculative manias of the quarter-century has presented the same phenomena of an extravagant rise of prices, ending in a formidable crash which fairly shook Wall Street, there were certain highly interesting differences between them. What Wall Street long described as the "big time" of 1901 was actually the explosion of speculative enthusiasm over the new position of the United States in home and foreign finance, following a series of large drops in the face of European shortage and accompanying a then unprecedented increase in our surplus export trade.

It was an era of industrial recapitalization in the United States. The formation of the billion-dollar Steel Corporation, the similar though smaller amalgamation of hundreds of other manufacturing companies, and a succession of railway combinations largely effected through purchase of one railway's shares by another on the open market—all stimulated to the highest pitch the speculative imagination. At the height of the violent speculation of 1901, even serious bankers in Wall Street began to talk of a situation in which the old laws of political economy, of financial action and reaction, no longer applied to the United States. The year of disastrous forced liquidation, 1903, was the consequence.

The speculation of 1905 and 1906 was mostly the work of millionaire

speculators; the general public was far less infatuated than it had been in 1901—of which, indeed, it retained a painful personal remembrance. But the very wealthy part of the outside public followed Harriman and the other speculating “insiders” on a scale which could be explained only by their belief that nothing could shake the power of concentrated capital to put up prices. The Panic of 1907 was in no small degree a result of these excesses, which were practiced as boldly in company finance as on the Stock Exchange.

The wild Stock Exchange speculation of war time was in a sense more reasonable, because the literally unlimited orders of foreign governments which poured in upon our manufacturing companies were a wholly abnormal and unprecedented influence. But even while the speculation based upon the war orders was at its height, it was openly recognized by the excited market that its continuance was always threatened with an immediate and final check, in the case either of sudden peace in Europe or of the entry of the United States into the war.

As for the exceedingly speculative mania of 1919, that stands pretty much by itself. It reflected illusions of the day which were equally reflected in the utterly abnormal rise of prices for commodities, based on the whole community's belief that a shortage of everything existed as a consequence of the war and that no limit could be assigned to the purchases of home and foreign consumers. When, however, it suddenly became plain, first, that the movement both in commodities and on the Stock Exchange had been based upon excessive and unwarranted use of credit (which had greatly overstrained the banks) and, second, that the foreign buying power had been as grossly overestimated as the home supply of goods had been underestimated, the end came with disastrous violence. We then had to face the famous deflation period.

Every person who takes part in our present-day economic system is affected in greater or lesser degree by the swings of the business cycle, because business dominates the economic life of the nation. It would be possible to write a volume detailing the effects of the ebb and flow of business activity upon various groups who are engaged in making a living in the United States. The effects would be sure to vary widely. School teachers and salaried engineers, for example, would be seen to suffer less from a general slump in business than stock-brokers, real estate agents, or piano salesmen. Likewise, they would be found to share less in the fruits of “boom” times than those leading lives involving more economic speculation.

The following statements present two samples of what business upheavals do to individuals and groups. The first is an account of the losses suffered by J. Ogden Armour as a result of the business depres-

sion of 1920-1921. The second is a discussion of how the business cycle affects the wage worker.

THE COLLAPSE OF A GREAT FORTUNE ⁶

by Earl Sparling

WASHINGTON, August 24, 1927.—To J. Ogden Armour has gone the dubious distinction of losing more money in a shorter time than probably any private citizen who ever lived.

One of the wealthiest men in history at the end of the World War, he was comparatively poor when he died in London a few days ago. Except for a few millions settled on his wife and daughter in the days of his prosperity, all his vast fortune had vanished.

Armour inherited in 1901 a total fortune estimated at \$100,000,000. He was 38 years old when the far-flung Armour properties came into his hands. He had been studying the business, from the ground up, since leaving college at nineteen.

The new head of the house of Armour proved more adept at piling up gold than even his father had been. He branched out into a hundred different businesses, including leather tanning, fertilizer manufacture, fruit preserving, cottonseed oil refining, cheese making, butter and egg storage, banking, vending of hotel supplies and the operation of hotels, curled hair and felt manufacture, vending of groceries, glue making, violin-string manufacture, etc.

When his father died the maximum business of the great packing company had totalled \$182,000,000 gross a year. The son by 1919 had pushed this total up to \$1,038,000,000 a year, which figure does not, of course, include any of the great wealth that rolled in from his other ventures.

His packing plants slaughtered and prepared for the world markets as many as 11,982,000 head of livestock a year. There were 400 branch packing houses in 1919 and the selling organization stretched from Cape Town to Stockholm, from Havana to Hamburg.

In 1920 and 1921 his world crashed around him. In four months' time he is said to have lost from \$100,000,000 to \$150,000,000.

"I did not know I had so much money until I discovered how much I was able to lose," he was quoted as saying.

His downfall cannot be explained by any one simple cause. It is said that the crash was started by his speculations in wheat just at the end of the war and that he was forced to use his solvent investments to protect his grain gambling losses. But that, even if true, is only part of the story. He was a victim in a larger sense of those general conditions which later brought agriculture almost to the point of bankruptcy.

⁶ From a dispatch appearing in the *Rocky Mountain News*, Denver, Colorado, August 25, 1927.

The price of hogs slumped in 1919-1920 from \$23.60 to \$9 per 100 pounds. The price of beef slumped from \$19.35 per 100 pounds in January, 1920, to \$13.63 in April of the same year. Wheat fell from \$2.96 a bushel in May, 1920, to \$1.08 in November, 1921. Corn fell from \$1.97 a bushel in May, 1920, to 46 cents in October, 1921.

What all this meant to Armour is best explained in the case of the hog market. It requires from two to four months to cure pork and at least 60 per cent of the carcass is, therefore, a speculative investment. Undoubtedly there is often a six months' lapse of time between the slaughtering of an animal and the retail selling of the most profitable parts of the meat. The hogs that Armour purchased in July, 1919, for \$23.60 per 100 pounds were worth only \$13 five months later.

Meanwhile, the prices at which Armour could sell his by-products were slumping also. Hides that sold for 50 cents a pound in July, 1919, were worth only 14 cents in December, 1920. Sheep pelts dropped \$3 in value during 1920. And hides and pelts of all kinds had piled up in the warehouses, due in part to cancellation of great wartime orders.

Armour's difficulties were also enhanced by the fact that, during the war, he had used a great part of his huge wartime profits in expanding his plant and equipment. Had the war continued a few years longer his profits would have rolled in even more fabulously. When the crash came there was less opportunity for him to balance war profits against post-war losses.

THE WORKER AND THE CYCLE⁷

by Leo Wolman

WORKERS know no more about the facts of depression and the business cycle than does the average business man. What they think and feel about a depression is the result of their own personal and immediate experience with it. They know it as a period in which they are out of work and are thrown upon their own slender resources. They know it as a time when their wages are slashed, so that even when they do work they earn less than they did before. They see millions of their fellows, yesterday prosperous, today on the verge of distress and misery. Attempts to mitigate their suffering they regard as weak, half-hearted and largely ineffectual. Out of a set of experiences and observations of this kind grow whatever attitudes towards depressions workers may have.

Their reactions are, moreover, not the product of hallucinations, but usually of the facts as they see them. Every one familiar with the history of the depression of 1921 will remember how it was ushered in with vague threats of bread lines and union-busting campaigns that would soon teach labor its proper place in the world. Unemployment was in many quarters even hailed as a godsend, since it would be the means of reducing labor

⁷ Adapted from an article in the *New York Evening Post*, October 27, 1921.

to impotence. Whether deliberate or not, open-shop movements found their points of departure and took on fresh impetus not in the periods of business activity, but during the depression. The agitation to protect the rights of the non-union workers against the aggressions of the organized are, as a matter of history, largely peculiar to periods of business lull and inactivity. A chart based on the statistics of trade union membership will show that the rise and fall of trade union strength is in almost complete agreement with changes in the business cycle.

Almost every type of activity designed to weaken the position either of organized groups of workers or of individual workingmen becomes strong and successful only when business is bad and people are out of work.

With the development of a body of literature about business cycles, what could be more natural than the arrival of an army of business prophets prepared to forecast future trends? With information indicating one or more aspects of a recent trend in business conditions, it is obviously a great temptation to forecast a little on the assumption that observable trends of the past will repeat themselves in some sort of regular predictable order. The only trouble with this procedure has proven to be that history rarely repeats itself in exactly the same way.

A good many professional forecasters have entered this alluring field, a few of whom have been correct in their forecasts more than half the time, many more of whom have proved correct in half or less than half of their attempts, and some of whom have exhibited such a breach between promise and performance that one is inclined to look upon them with a suspicion of quackery. In justice to the forecasters, however, it should be mentioned that forecasts are sometimes more valuable and useful when later events prove them to be incorrect. This situation may arise when, in the flush of prosperity, the forecasters take a pessimistic tone and manage to convince the business world that trouble lies just ahead. If the business men act on this advice and take in sails, the trouble may be avoided and the forecast fortunately be proved incorrect. It is asserted by certain authorities that this is precisely what happened in the early months of 1926 when the forecasts were loudly proclaiming "Depression ahead. Watch your step."

The following article provides some material illustrative of the use of forecasts in the shaping of business policy. It was written in January, 1925, and includes a discussion of two forecasts made at that time. It may be noticed that as the events turned out it was the first of the two forecasts which proved to be more nearly correct.

A SAMPLE OF FORECASTS ⁸

by Carlton P. Fuller

DELUGED by facts and figures, theories and counter theories, the bankers and business men of today must stop frequently to clear their minds of all minor, distracting details, and map out a general program. For example, at the present time (January, 1925) there is unanimous agreement that some degree of prosperity lies ahead of business after the disappointments of last summer. The length of this period of prosperity is, however, another matter, and here is an occasion for each manager to clear for action by lining up the general probabilities. A sound conception of the business cycle is the best backbone available on which to build up a skeleton outline of what is likely to occur.

After a decade of use, "business cycle" is as familiar a term as "profit and loss" has always been. It is so familiar that two dangerous tendencies have already cropped out: the one is prone to blame all losses and, to some extent, profits, on the so-called cycle, without regard to efficiency of management; the other assumes that we know all about business cycles because we can demonstrate how they happened in the past. A wholesale caution against the latter has been thrown out by Professor Irving Fisher in stating that "cycle" may be a misnomer in so far as it implies a *regular* return of the same series of events. The business cycle is noticeably irregular, and the men who have studied it most deeply (Professor Mitchell, for instance) are the first to disclaim exhaustiveness of knowledge.

How long is the usual cycle? Extensive arguments are put forth to support anywhere from eighteen months to ten years, with some degree of concentration around forty months. Such arguments are certainly not academic, for it does the business man little good to know that prosperity will be followed by dull times, unless he knows *when*. Everyone knew that the boom of 1919 could not last forever, but there were numerous contradictory ideas as to when the end would come.

Are minor spurts and declines, such as we had recently, to be considered cycles? The usual test is *again length*: how sustained was the preceding prosperity or depression, how far has this movement gone, etc. One prominent business service asserts that no major business cycle can end until there has been stringency in the money market; another says that the upward action must be followed by an exactly equal reaction; in short, the tests of length vary as much as those using them.

Discussion of the topic has become even more animated since post-war figures have been available; is the cycle becoming shorter or longer? Numerous minor movements in business have led many observers to conclude that the cycle is actually shorter. The most common argument for supporting this conclusion is the broadcasting of complete information on business conditions which enables men to act quickly when tendencies

⁸ Adapted from an article in *The Bankers Magazine*, January, 1925.

become apparent. On the other hand, the most scientific of the business services maintains that the cycle is lengthening because of the elasticity of credit supplied by the Federal Reserve System. It will be some years before definite proof can be made of which is right. In such a dilemma, it might seem wisest for the business man to dispense altogether with professional prophets, as he did for many generations. But at the present juncture of affairs, he will find the opposite remedy advisable—following both schools of prophecy.

Although he can worry along without peering down the ages, the business man is always interested in what is coming *next*. He can take comfort, therefore, in learning that the two schools of forecasting at present offer the unusual advantage of affecting his policies in the same way, *for the next six months*.

The first theory is that the recovery last fall was the beginning of a major upswing in business. Last summer's depression ended a business cycle which began with the depression of 1921 and peaked in the spring of 1923. The forty months' period has been fulfilled.

According to this theory, we may expect good business for at least a year or two, with nothing more than minor interruptions. Probably most business prophets are inclined to support this view, basing their opinion on the combination of strong factors which exists after the really severe decline in production and employment last spring and summer.

1. Chief of the factors is a much sounder agricultural situation after years of distress.

2. Of just as great long-time significance is the start toward rehabilitation of Europe.

3. Plentiful credit makes possible vigorous expansion.

4. Construction programs continue abnormally large.

5. Distribution of goods is active, and will continue so under the stimulus of high purchasing power.

Despite warnings against proceeding too fast, many are expectantly awaiting a real boom, topped off with a genuine spurt of inflation and the hilarious hay-making of olden days. Such a vision has been conjured up by the fireworks on the Stock Exchange, and it is by no means an impossibility.

The second theory holds that this recovery is a temporary interruption of a long down-trend. While it will last at least six months, it will be followed by a renewed decline which will reach the lowest depths since 1921. The business cycle is being stretched out by the efficient credit reservoir of the Federal Reserve System and the better control men have achieved over their businesses.

Aside from a theory, supporters of this view put forward the undeniable facts that post-war readjustment is incomplete in many industries, and that margins of profit are commonly thin. They point out that world-wide progress is by no means assured, and that even if such were the case we have no way of knowing what the repercussion on American business would be.

Despite this contrast of opinion, the business man will count himself lucky to be assured by both that six months of prosperity lie ahead. He will draw his own conclusions as to what may eventuate beyond that limit, and will know that during the six months straws will become visible showing which way the current will run thereafter.

A little bit of knowledge in the field of business forecasting, as in most other fields, is apt to prove a dangerous thing, particularly when it is coupled with a desire to use this knowledge for purposes of stock speculation. Perhaps the following selection will have a chastening effect upon those threatened with being overcome by that temptation. Although taken from a book of fiction, the excerpt is not thereby divorced from economic reality.

LOTTERY ⁹

by W. E. Woodward

IN THE spring of 1905 Mr. Ledoux had become interested in a profound literary work on money-making in Wall Street. Its title, *The Science of Stock Speculation*, was alluring. Until he came across this book, Mr. Ledoux had thought stock speculation a mere gamble, and it was refreshing to him to learn that it was a science, and not a gamble at all. . . . Though, of course, many harebrained people, rushing into it without information or sound judgment, made a gamble of it. The author of the book said this was to be deplored. Mr. Ledoux thought so, too.

As the book cost only three dollars, it was evident that almost anyone might avail himself of this valuable science. Why many people had not done so was a mystery to Mr. Ledoux until he had read the author's observation that lack of intelligence is the reason why there are so many losers in speculation. He said that only intelligent people, with quick and efficient thinking machinery, can understand the science of trading in stocks.

This statement pleased Mr. Ledoux. He found, upon reading the book, that he could understand it without difficulty.

The author had a good deal to say about financiers of vision, and he intimated that any intelligent reader of his book would be qualified as a financier of vision after he had studied its contents.

In the first—and depressed—stage of the business cycle, where there is hardly any belief in either God or Christmas, stocks are accumulated at low prices by these far-seeing financiers. The author advised his readers to follow their example.

Then the cycle starts its upward swing and a change for the better takes place. The banks look upon the nation's prospects with a more

⁹ Adapted from *Lottery*, Harper and Brothers, 1924, pages 100-112 *passim*.

cheerful eye; money becomes easier; factories begin to hum; more people are employed; corporations pay dividends; stocks rise.

The next scene is that of a "bull" market in full career, tips circulate in all directions; the public begin to buy stocks and financiers of vision begin to sell them; prices and wages get higher; factories reach capacity production; the chairman of the United States Steel Corporation gives the American people his canonical blessing; the Socialists are overwhelmingly defeated in every part of the country, and some of them are put in jail.

As the upward movement draws to a close prices rise with the glittering rush of fireworks; head waiters and shipping clerks talk wisely of the market; "Stocks Soar in Wall Street" stares from the first page of every newspaper; the financiers of vision, having sold everything down to the last scrap of paper, recline languidly at Palm Beach or saunter along the acacia-perfumed boulevards of Paris.

At this point—the author said—the student of the science of speculation ought to take his profits and let Wall Street alone for a while; unless, of course, he felt himself capable of cultivating a spirit of pessimism and, following the cycle in its downward swing, selling stocks short and talking in a melancholy way about the country going to the dogs. Very few people, he added, are able to do this with success.

Great economic laws govern these movements, the author asserted. These laws are irresistible, and are almost as automatic as a clock. Business depressions, he stated, are caused by overproduction. To put it more plainly, the harder the nation works and the more it produces, the poorer people become.

Finally, overproduction leads to a state of affairs involving the most fascinating paradoxes. So much wheat has been raised that the farmer almost starves to death; the cotton planter has grown so much cotton that he cannot buy a cotton shirt; so many pairs of shoes have been made that shoe factories go into bankruptcy; and so much cloth has been woven that everybody becomes dreadfully shabby and cannot afford to purchase new clothes.

The author hinted that this is one of the triumphs of the capitalistic system of industry. A business depression is a purgative—a sort of economic castor oil—freeing the country of its undigested commodities, chastening the intolerable arrogance of the workingman and bringing his wages down to a salutary level, and leading industry back to a state of health and sanity. . . . It has the advantage also, as our author shrewdly observed, of lowering the prices of stocks and causing small stockholders, who are usually out of work in a time of depression, to sell their holdings at attractively low prices. In this way stocks come back into the strong, able hands of the financiers of vision who are responsible for the country's progress.

Mr. Ledoux was immensely impressed by this explanation and particularly by the array of statistics that supported it. The brilliant logic of the author glittered like a peacock's tail on every page.

The principle was excellent, he thought, but how could it be applied practically? How could a man tell when to buy or sell stocks?

The answer was surprisingly simple; the second half of the book was devoted to it.

The author said that every intelligent trader in stocks ought to keep a series of charts, to be corrected day by day, showing the relative rise and fall of prices. . . .

Then, with these charts before you, the author declared, it is easy to see precisely how the market stands. When prices are down in the valley, stocks should be bought; when they are on the peaks, stocks should be sold.

Mr. Ledoux began to keep a set of charts. For a long time he studied the market with close attention, working with his charts every evening while his wife sat near by with her sewing. Occasionally he made imaginary trades and watched the results. These paper transactions came out remarkably well. He came to the conclusion that a "bull" market was in being, and that for some time to come the tendency of prices would be upward.

In May of 1905 he made his first real transaction. He felt that he was doing something of great importance and that his scientific study was about to bear fruit, so he made a trip to New York and established connections with a reliable brokerage house. At the same time he bought five hundred shares of U. S. Steel at 26. Within a few days he had the satisfaction of seeing it rise to 28, and he reflected cheerfully that the thousand dollars profit which then stood to his credit was the easiest money he had ever earned in his life.

In December he closed out his trade. Steel had touched 43, and he thought this was about as high as it would go. He had made eight thousand dollars on the transaction. . . .

The gratifying results of his first experience showed him that he had the true financial mind, in which sound judgment, quickness of perception, initiative and daring, are combined in pleasing proportions. . . .

There were golden images in his mind. He saw himself as one of the money kings of America. Five years—that was all he needed. In that time, with his ability to make money multiply, he ought to be worth millions. A dream, of course. But strong men make dreams come true. Napoleon did—and look at Carnegie, look at Wanamaker, look at Harri-man, look at Morgan!

The year 1905 came to an end in a glow of national prosperity. Production was at its high peak and business was booming.

These outward appearances did not deceive Mr. Ledoux. His searching analysis of market conditions had shown him that the peak of prosperity was passed and that thereafter the course of prices would be downward. He took the "bear" side and began to sell stocks short.

Short selling is simply selling what you haven't got with the hope that prices will go down and that you can fill the order later by buying at a lower figure. It is the most ingenious device for making pessimism profitable that has ever been conceived by the human intellect.

Mr. Ledoux's judgment was again correct. Within four months he had made twenty-six thousand dollars through operations on the bear side.

Strange thoughts about himself began to come into his mind. There must be something, after all, he reflected, in the idea of the golden touch. The legend of Midas was not all pure fantasy. He felt within him a sense of intuition which transcends the limits of science—an uncanny and sure-footed feeling about stocks. It was not knowledge; it was deeper than knowledge.

In the April of 1906 a catastrophic event occurred which, Mr. Ledoux felt, would accelerate the downward movement of prices. This was the San Francisco earthquake. The property loss was enormous, and derangement and dislocation of industry were certain to follow.

When the news of this disaster came, and he realized its full import, Mr. Ledoux went to his desk, picked up a list of stocks, and ran his finger quickly down the column. Stopping at Union Pacific, he said impressively to himself, "That will be the leader in the avalanche."

Yes, Union Pacific was the key—Union Pacific, that long string of iron lying across the country and ending in the city of wrath and fire.

He sent a telegram to his brokers immediately and instructed them to sell short a large block of Union Pacific stock. Short selling. Selling stock which he did not own, but hoped to buy later at a lower price.

During this epoch the stock of the Union Pacific Railroad was being manipulated in the Wall Street market by a small and unimportant-looking man who had a reputation for astuteness and a love of country life. He had learned how to put satire into finance—a most unusual talent. . . .

This gentleman conceived the truly satirical idea of engineering a rise of unexampled proportions in Union Pacific stock in the face of the prevailing melancholy.

Having made his plans, he announced them to the world. He had a trick of telling the truth in such a way that everybody would consider it a lie. His announcement was held to be a flimsy boast, and in rather poor taste, lacking indeed the dignity of poetic fancy.

Mr. Ledoux was caught at once. The stock advanced ten points; and Mr. Ledoux faced a considerable loss—on paper. He held on—considering himself a veteran speculator, and having faith in his charts and his analysis of general business conditions.

Then the quotations on Union Pacific began to recede, a point or two every day, and Mr. Ledoux said to himself, "I told you so." He was so encouraged that he instructed his brokers to sell more stock short, increasing his commitments day by day.

The true inwardness of the situation was not as he had imagined it to be.

The fact was that the financial satirist in New York had taken his hands off the market for a few days. . . .

Union Pacific slipped back without noise or excitement. The stock market prophets wired their customers that "The show is all over. Union

Pacific is a sale. On its way down it meets with very little support. Nearly everyone realizes that the stock has been too high for some time."

The great stock manipulator came back into New York quietly, looking smaller and more unimportant than ever. . . .

("Well, we'll see how the market stands.")

He picked up the cabalistic paper tape that ran through the chattering ticker. . . . Union Pacific . . . 500.142 . . . 200.142 $\frac{1}{4}$. . . 300.142.

("Wait till I get through with it; they'll remember me.")

Then he turned to the news ticker spelling out its staccato gossip: "Sentiment around the Union Pacific post is bearish. It is rumored that the prominent operator responsible for the rise is selling stock." The paper tape slithered through his fingers.

("Let's play the owl and eagle game; squeaking mouse and sharp-clawed cat.")

With religious faith in his charts and in his own judgment, Mr. Ledoux sold more stock. Some complicated mathematical calculation told him that the price would never reach 155; but in spite of his faith he watched its rise with sickening dread. . . .

"Union Pacific crossed 162 and was within a quarter of a point of 163 at the close of the market," his news agency wired one day in August. "There is a lot of bearish opinion in respect to this stock, and the expert view is that the advance has almost, if not quite, reached its top."

Mr. Ledoux studied his charts. Yes, the price was insanely high, and, according to the laws governing such movements, it should now begin to recede in earnest.

Next forenoon the news agency, ignoring its own bearish comment of the previous day, said in its early wire, "Union Pacific was in active demand at the opening this morning, and the price advanced three points in the first half-hour."

The goose-flesh prickled on Mr. Ledoux's body as he read this telegram. A sense of doom came over him. He could not act; he could not even think. With intense anxiety he fiddled among his papers, made lying entries in the firm's ledger, and stammered incoherent instructions to his subordinates.

At the close of the market the final wire was delivered. Mr. Ledoux took the yellow envelope in his trembling fingers and went into his private office. A cold tremor passed over him; his lips were dry, and as he swallowed he felt as if a ball were lodged in his throat. . . .

"If you want anything hard enough, you get it," he said to himself, pressing the message tightly between his palms. "I want this message to say that Union Pacific had a wide open break this afternoon." For some time he held the sealed telegram in his hand, wishing intensely. Then he slowly tore open the envelope, unfolded the yellow sheet, and held it tightly a moment before reading it.

"There was a complete rout of the bear party in Union Pacific in the latter half of the session," the bulletin said in its sparse, unemotional style. "The advance was sensational. The stock took the bit in its

teeth, and made a new high record for all time. The close was strong at 179."

179—179—179. He could not believe his eyes. A mistake in figures. Must mean 169. At 179 it meant that the price had risen sixteen points in one day. Impossible!

Further on he read: "The rise of sixteen points in one session is a revelation of the power of the great financial group behind the advance of Union Pacific. A huge short interest has been caught in this trap."

"Oh! . . . Oh!" Mr. Ledoux groaned as he laid his head against the drab wall of the little cubbyhole. He had lost more than one hundred thousand dollars in a few hours. . . .

It was really too bad that he could not have held on a little longer. The highest price reached by the stock was 195. . . . Long before it had attained that record-breaking figure the financier and his friends had sold most of their own holdings at a gigantic profit, but the stock kept on advancing under the momentum of public buying.

The break came at 195, and the price steadily declined until it touched 100. At the latter price Mr. Ledoux could have come out with a net profit of more than a quarter of a million dollars, and would have been thereafter one of the solid citizens and shrewd financiers of Riverside.

It is not necessary to rely altogether upon forecasts of the future to escape disastrous results from fluctuations in business activity. There is much that can be done by individual business enterprises in the way of shaping their policies to the known facts of the business situation in which they find themselves at any particular time. The Dennison Manufacturing Company is a conspicuous example of a firm which has adopted the policy of acting in some respects counter to the prevailing business practice at each phase of the cycle and thus partially neutralizing its effects. Whether this is a valid policy for all businesses to take simultaneously is a question one may speculate about at will. A description of some of the Dennison policies is given below.

INDIVIDUAL PLANNING TO "BEAT" THE BUSINESS CYCLE ¹⁰

by Henry S. Dennison

THE head of a cotton manufacturing concern was in the depth of despair. Blue radiated from him. He told his troubles to a friend who had been the head of the statistical department of one of our biggest corporations and he wound up by saying:

"And I'm afraid we'll have to go to the banks for help for the first time in fifty years."

"What would you say if I told you that you would be turning out at

¹⁰ Adapted from an article in *Nation's Business*, February, 1922.

least 70 per cent of normal output by May 1?" asked the friend. (This was in the early days of the depression of 1920.)

The cotton man looked unbelieving, but a few months later he met the statistical expert and said:

"Why didn't you tell me I'd be working night and day, not just 70 per cent, while you were about it?"

"I contented myself," said the business prophet, "with asking him if he had gone back over his own business record for the depression period of 1907-08 as I had told him to. He hadn't, of course. If he had, he would have seen that in periods of downward business his industry, cotton, runs counter to most others. There's a simple enough reason. Wool is pushed aside for cotton as times grow hard."

I have told this simple story because it illustrates what we learn from a study of those alternating periods of business activity and depression which we are accustomed to call cycles and which come at more or less regular intervals.

The danger in the word "cycle" perhaps is that it gives too great a suggestion of regularity, of even periods of rise and fall. There was a time in this country when it seemed as if ten years completed a cycle and we had panics in '37, '47 and '57. But the very complexity of modern life perhaps has introduced new elements which make the cycle less regular.

A great need of modern industry and commerce is for intelligent direction which looks well beyond the feeling of the moment. The business man must get the habit of planning and budgeting, of fixing careful attention upon the future. As the use of such planning becomes habitual, unbridled guessing will be displaced by more careful estimates—by guessing guided by all available facts. The manufacturer has no more important problem than that of forecasting the demand for his products. He cannot afford to be misled by outward appearances and such phrases as "The shelves of the country are bare" or "The shelves of the country are glutted." He must have full and timely statistics well and clearly presented.

He must not be afraid of being called a pessimist for fear that he will affect the country adversely through proper pessimism. The time to be a bull in the United States is not when everybody else is a bull. At such time the country is surfeited with bulls. The time when the country needs bulls is when the bears are running wild. It is no credit to be optimistic when the country is suffering from overproduction.

Any business man who undertakes to apply to the future a knowledge of the past finds himself obliged to watch three things: the trend of general business, of his own industry as a whole, and of his particular part of that industry.

All this may sound like talking generalities. Let me tell what I and my associates have sought to do in the Dennison Manufacturing Company. Our purchases of material, our fixed investments and our credit policy are all planned with an eye on the swings of the cycle. Take the credit planning, for instance. During boom times orders are free and credits easy; nevertheless, it is then that a credit department can get

busy and save a good part of the losses during depressions. For when orders begin to crowd capacity, some must be lost on account of delivery. The credit department should do its best to save the company from losing a prompt customer to serve a shaky one. In our own case we use the over-sold boom times to improve the average dependability of our accounts by stiffening our standards at the credit desk. New orders are then seldom accepted from customers of poor record.

Collections begin to fall off when a depression starts, and as soon as the first signs of the coming slump become evident we make arrangements to follow more closely all fair-sized accounts just as soon as possible after the date of maturity.

On account of the difficulty of collecting during depression, the temptation is to restrict credit during such times. This, we believe, is a mistake if it results in the curtailment of sales when sales are needed most. One must scrutinize credit very carefully at such times, but it pays to take a great deal bigger chance when one needs the orders than when they are not needed. We expect, of course, a bigger ratio of loss in depressions, but so far as possible we want that loss to result from orders taken when they were needed rather than from orders taken months before, manufactured on overtime pay and in conflict with orders for good pay customers.

The results we can show from adopting a policy of rigid credits during times of expansion are interesting. It seems that we have reduced losses 75 per cent by this policy of preparedness.

How do we market our goods when times are bad; when the cycle has gone on into a period of depression? Largely by being prepared for it by holding back on new lines of merchandise when our factory has all it can do to fill orders for those already established. We do our planning of new things before the depression comes, but we don't launch them until the buying appetite is jaded and needs the stimulus of novelty.

Above all things we do not fire our salesmen during times of depression. The time to fire salesmen, if we are going to fire them at all, is during prosperity when we have more orders than we need. Depression is the time to take on more salesmen, if finances will in any way allow, and finances will allow if our vision has been keen enough and we have had the moral courage to keep ourselves in check when everyone seemed to be saying to himself, "Good times are here and they'll never end."

Advertising, which is one way of merchandising, is a case in point. Make your new advertising plans in times of prosperity. Have them ready to put out when the right moment comes, and that moment is when things are dropping. What is the use of a manufacturer's advertising when he already has all the orders he needs? Let him save up his ammunition, prepare his plans and carry them out when he needs business. We have found it wise to make an advertising appropriation over a five-year period and to school ourselves to conserve that fund for the time most needed.

These are a few of the practical ways in which a study of business

cycles may be turned into dollars and cents. I should be the last to claim a power of prophecy. At best, perhaps, all our study can do is tell us not even where we are going but only "where we are at." Our estimates of the future are often wrong, but it is "better to have planned and lost (part of the time) than never to have planned at all," for it is only by long-time planning based on past experiences reduced to figures and charts that we can turn bad times into good.

The question of the control of business cycles is one of the most important economic problems in the whole kit-bag of economic puzzles. Some progress toward the control of fluctuations has already been made but a great deal remains to be done. While the problem is extremely difficult, the way is made easier, perhaps, by the fact that there is more agreement upon the statement of the problem and the need for progressive solution than there is in certain other more controversial problems like that of the division of income.

One group of suggestions for methods to control the business cycle has already been touched upon—the increased use of statistical knowledge in the shaping of individual business policies. Other proposals for control, more comprehensive in scope, are given in the following statements. The first is a suggestion made by Mr. Clark in the course of a book on overhead costs. It contemplates a thorough-going and drastic policy of "producing below costs" when necessary, rather than not producing at all, on the theory that if all did this, the most severe losses would never occur since selling prices would rapidly catch up to costs. Following this suggestion is a general summary of some of the most promising lines of activity directed toward the control of the business cycle.

OVERHEAD COSTS AND THE CYCLE¹¹

by John Maurice Clark

ECONOMIC efficiency consists of making things that are worth more than they cost, and it is the peculiar characteristic of private business, under a competitive system, to seize and exploit any opportunity to achieve this desirable end. Thereby—so runs the argument—it tends to produce as much of everything as can be produced without driving value below cost, and any more would not be economically worth producing.

For example, if people undertake to make more automobiles than other people will pay for, the automobile business will become unprofitable, and the surplus of people and resources that were making automobiles will look for something else to do for which people will pay. Ultimately, after

¹¹ Adapted from *Economics of Overhead Costs*, University of Chicago Press, 1925, pages 1-34 *passim*.

some possible tribulations, they will find their way into house-building or the moving-picture business or something else for which there is an adequate demand. Thus they are placed where they can do the most good—economically speaking. If a business cannot make a profit, that is a sign some of the resources it utilizes are not in the right place.

This idea that production must cover its expenses in order to justify itself is also applied to times of business depression, when output is curtailed because it would involve a loss to keep the wheels moving at their regular speed. In this case it is difficult to say that labor is thrown out of work because it is not in the right place and should have gone elsewhere, because virtually all industries suffer from the same disease at the same time. For the present, at least, there is no “elsewhere” to go. This being the case, the losses of producers cannot exactly serve as salutary penalties, to spur misguided people into the right avenues of usefulness; they merely prevent things from being produced when there is no “adequate market” and where the goods would not be worth what they would cost.

But what is the cost of goods, under such circumstances? Not of goods in general but of particular additional supplies that might be produced if the market only permitted? What does it cost the railroads to haul a carload of lumber to market, or the half-idle car manufacturers to make a car to haul next year's lumber, or the steel plants to make the steel to make the car, or the mines to mine the coal to make the coke to smelt the steel, or what would it cost the miner, sitting idle in front of his shack or filling in the time with incidental gardening, to go into the mine and get the coal out? What is the cost of anything, at any time? The instant we try to give a thoroughgoing answer to such a question we find ourselves perplexed by the existence of “overhead costs.”

To put it briefly, the costs we can trace are only a part of the costs of the business as a whole, which it must somehow manage to cover. What now has become of our rule of economic efficiency? Is the carload of lumber worth carrying if it covers all the cost that can be attributed to that single carload? Or is it only worth carrying if the railroad as a whole is covering all its costs; and what are they? Shall we count the costs that would keep on even if the railroad shut down entirely? Evidently “cost” is an ambiguous term, and the test by which we are accustomed to decide whether production is self-sustaining or not has lost its meaning and requires a thorough re-examination.

Such a re-examination throws a most interesting light on the time-worn dispute over the interpretation of what happens in time of business depression. One group says that at such times production cannot be carried on because it will not cover cost, and appears to acquiesce in this accounting, while regretting the obvious evils that result. The other group finds food for satire in people going without overcoats because too many overcoats have been made, or sleeping on park benches because of an “overproduction” of houses. They speak of makers of shoes, clothes and other things, who are suffering for lack of each other's products and

who could perfectly well enter the empty factories and make them for each other, but are prevented because the capitalist owner exacts his toll of exploitive profits.

If it is good economy to operate a business without any return on investment, because the return would be lost just the same if the business shut down, is it not also good economy to operate at less than no return on investment, if the deficit is no greater than the operating expenses that would go on even if the business suspended operation? Is it not good social economy to produce at an absolute financial loss rather than not at all? Some businesses have doubtless done just this at such times, but it is common knowledge that managers do their best to maintain net earnings and that, whatever they might do if it became a question of avoiding a complete shutdown, they begin submitting to moderate curtailment of production long before net earnings disappear. Thus it appears to be generally true that production is curtailed while its value is considerably more than the cost specifically traceable to it.

If the ultimate costs are nearly all overhead it follows that it would pay for industry as a whole to keep going rather than stand idle, even if the product were worth next to nothing. And yet any serious drop in prices is the signal for widespread slackening of production. Industry as a whole is unwilling to treat its expenses as overhead and act accordingly.

Single enterprises are often willing to disregard their overhead costs in a time of slack demand, though many are always too much afraid of "spoiling the market." But it is not enough for any one enterprise to do this, nor for all the enterprises in any one stage of an industry to do it. The producers of everything they buy would have to do it at the same time, and again the producers of everything that these producers buy, and so on indefinitely, back to the ultimate raw material and forward through every metamorphosis or handling until the goods reach the ultimate consumer. Retailers would have to force on the market goods they had bought when prices were up. Hardest of all, labor would have to do the same thing; that is, be ready to sell its services for whatever they would bring and make up its necessary maintenance—if at all—out of the earnings of better times.

If all acted at once, each one would feel the stimulus to demand resulting from all the price concessions taken together, and it would be very great in proportion to the sacrifice required of each single producer.

The chief cause of falling-off in the demand lies in the fact that any unemployment reduces people's purchasing power and so returns on itself in a vicious circle creating more unemployment. If everyone were determined to sacrifice earnings whenever necessary to maintain output, this vicious circle would be broken and the chief cause of shrinkage would disappear. Some primary causes of fluctuating demand would remain, but their cumulative effects would be controlled or eliminated.

CONTROL OF THE BUSINESS CYCLE ¹²

by Wesley C. Mitchell

THE long history of business cycles, roughly one century in the United States and two centuries in England, does not prove that the problem of control is hopeless. On the contrary, this history supports the belief that carefully devised measures taken in season may accomplish substantial results. Indeed, substantial results have already been achieved in controlling one phase of the business cycle.

Crises in England formerly grew into panics. But their centralized banking system enabled the English to develop a plan of "panic financiering" which has proved effective in every crisis since 1866. The vital feature of this plan is giving practical assurance that every business enterprise not actually insolvent can, by paying a stiff rate of interest, obtain bank loans to meet its maturing liabilities. This assurance suffices to prevent the spread of panicky fears among business men, however dark the prospect in other respects. A marked change in the character of British business cycles was produced by this new policy. Crises lost much of their dramatic intensity, and the subsequent depression became the matter of chief concern.

In this country the organization of the banking system long made it impossible to assure solvent borrowers after the British manner. Consequently we had real panics in 1873, 1893, and 1907. But the establishment of the Federal Reserve system in 1914 put American banks in a position to help solvent yet embarrassed business houses as effectively as the English banks help their clients. Hence our crisis in 1920 was much more like the crisis of 1907 in England than like the crisis of 1907 in this country.

We have learned, then, how to mitigate the violence of crises. The next step is to devise methods of mitigating the severity of depressions. Several such methods have been proposed. Though not yet tried on a large scale, some of the proposals rest on a careful study of experience and merit careful consideration.

Concerning one line of action, there is no room for doubt. The more men of affairs understand the cyclical factor in business activity, the more they plan to take advantage of the opportunities it presents for gain and to avoid the losses it threatens; and the better the data at their disposal for judging business prospects, the less violent will oscillations become. When a future danger is so clearly perceived that everyone prepares to meet it, that danger seldom proves serious.

A notable illustration is afforded by the extraordinary fall of prices of 1865. Everyone expected that when the Confederacy collapsed the credit of the Federal Government would improve, that the United States notes

¹² Adapted from the *New York Evening Post*, October 19, 1921, and from the *American Economic Review*, March, 1922 (last five paragraphs from the *American Economic Review*).

which were the standard money of the day would rise in value, and that prices would tumble. Of course this anticipated fall of prices was a grave danger against which every business had to provide. Nearly all business men made such provision. The anticipated fall began in January, 1865, and it proved more violent than any previous decline. Yet the fall of prices passed off without producing a severe financial stringency or a long depression.

Every measure which aids the business public to foresee coming dangers, as they did in 1865, will prove helpful. In particular, the statistical data which summarize current conditions can be, and should be, rendered far more useful than they are at present. Gaps in our knowledge should be filled in by compiling fuller statistics of stocks of goods on hand and on order, of manufacturing output, of construction, of numbers of men at work part time, full time and overtime, and of their earnings, of the leading factors affecting cost of production and fluctuations in demand. Not less important is the effort to make the sometimes bewildering array of figures more intelligible and more significant. Finally, these more complete data in more intelligible form should be made readily accessible to all men minded to use them. Happily, there are many active workers in this field—government agencies, of which the Department of Commerce is especially progressive at present, business associations, scientific societies, forecasting agencies, statistical departments in corporations, commercial periodicals, newspapers, and individual statisticians. We can count upon a gradual improvement both in the data and in the use made of them.

A second proposal is the long-range planning of public works, municipal, state, and Federal. Much work of this sort, it is held by competent judges, can be accelerated for a year or two or postponed for a similar period without serious detriment to public interests. By systematic planning governments might diminish the amount of work they put to contract in years of great activity and increase the employment they provide for labor and capital in dull years, thus reducing the intensity of both boom and depression. Besides its other advantages, this plan has financial promise, since the cost of construction work is subject to a wide swing between the crest of prosperity and the trough of depression. Estimates made in this country and in England agree in indicating that the amount of work adapted to allocation in this way runs high in the millions. It is obvious that every dollar paid out in hard times would give rise to demands for goods on the part of contractors and their employees. This plan is by way of being put into operation on a small scale. In July, 1917, Pennsylvania created an Emergency Public Works Commission to provide work during periods of unusual unemployment. California has enacted a similar law. Both experiments should be followed with attention.

The Wisconsin legislature has before it another plan—the Huber Unemployment Prevention Bill. The theory of this Bill is that the cost of unemployment should be treated as a fixed charge upon industry, and

that if manufacturing plants which show wide fluctuations in the number of men on their payrolls are forced to pay higher insurance premiums than the plants with steadier records, they will soon devise methods of stabilizing their working forces. This theory is supported by the effects of legislation compelling employees to carry industrial accident insurance—legislation which has put a premium upon accident prevention and, it is claimed, reduced the cost of accidents to employers. The Huber Bill creates a mutual insurance company which all manufacturing establishments in the state must join, and to which they will pay premiums varying with their unemployment rates. The insurance company is to be managed by the employers, under rules approved by the State Industrial Commission. To be eligible for compensation for unemployment, an employee must have worked at least half of the preceding year within the state and must have been laid off by his employer for no fault of his own. The rate of compensation is \$1.50 for adults and 75 cents for workers under nineteen years of age. The maximum period for which unemployment compensation can be drawn is six weeks for the first three years of the Act's operation and thirteen weeks thereafter. If this Bill is passed by the Wisconsin legislature it will provide us with another significant experience. [NOTE:—This Bill was defeated.]

Meanwhile certain corporations have initiated schemes of insuring their employees and stockholders against the effects of depression. For example, Deering, Milliken and Co. set aside two sinking funds to guarantee a minimum rate of return to both capital and labor. The capital sinking fund is drawn upon to make up any deficits below the 6-per-cent interest rate in lean years. The unemployment guarantee fund is used to provide half pay for the operatives during periods of unemployment. A somewhat similar scheme has been adopted by the Dennison Manufacturing Company, and another method of attaining the same end is being tried by the garment manufacturers in Cleveland. The latter employers agree to provide at least twenty weeks of full-time work in each half year. If they fail to provide this much work they agree to pay two-thirds of the wage that would have been earned in the period of idleness, with the proviso that their payments for time lost shall not exceed $7\frac{1}{2}$ per cent of the payroll. This plan obviously offers a strong financial incentive to keep the workers employed.

Besides these direct schemes for reducing the extent of mitigating the hardships of unemployment, various monetary and banking reforms are advocated to reduce the violence of the cyclical oscillations to which business is now subject—further centralization of the banking system, stabilizing the dollar, raising interest rates earlier or more rapidly in periods of prosperity and the like.

Into the intricate arguments for these proposals it is impossible to go here. But one point should be emphasized. Nearly all well-considered schemes for controlling the business cycle, whatever their line of attack on the problem, agree in this feature—that the remedy is to be sought by shifting part of the excess of the "boom" into the period of depression.

It follows that the best time for effective preventive action comes before activity has reached that wasteful intensity which produces business stresses and brings on a crisis. And the best time to formulate a wise preventive policy is a time when the ills of depression are fresh in mind and when the problem can be studied with the necessary care.

To do what in us lies toward the improvement of statistical data is by no means the whole of our opportunity. After all, the endless tables of statistics which we need are only raw materials from which we are to construct a serviceable account of economic behavior—an account which will serve better all the efforts to raise the standards of social welfare. Among these efforts the effort to control the business cycle is but one, though one in a most hopeful stage at present. Here is a really progressive line of economic research. The books in this field rapidly go out of date because the later writers have new things to say; they really have more knowledge, keener insight, better technique than their predecessors. And yet we are far from being within sight of the solution of our problem.

You remember Carlyle's description of the situation of England in 1843 when he spent the first seven weeks of the year in writing *Past and Present*.

"England is full of wealth," he wrote, "of multifarious produce, supply for human want in every kind; yet England is dying of inanition. With unabated bounty the land of England blooms and grows; waving with yellow harvests; thick-studded with workshops, industrial implements, with fifteen millions of workers understood to be the strongest, the cunningest, and the willingest our earth ever had; these men are here, the work they have done, the fruit they have realized is here, abundant, exuberant, on every hand of us; and behold, some baleful fiat as of Enchantment has gone forth, saying, 'Touch it not, ye workers, ye master-workers, ye master idlers; none of you can touch it, no man of you shall be the better for it; this is enchanted fruit.'"

It is true that Carlyle made the grave mistake of supposing that this condition of affairs was a chronic instead of an intermittent disease of the body politic; but for all that, his description applies as well to the United States in 1921 as to England in 1843. And this description points straight to the heart of the difficulty which we must face in our efforts to control the business cycle.

In 1921 millions of us were idle when we wished to work, billions of dollars' worth of plant and machinery stood unused when the owners longed to start their furnaces, and what we wanted to produce we needed to consume. The Edict of Enchantment which forbade us to do what we wished was pronounced by the Money Economy. We are periodically mastered by this social machinery we have made, and stand idle and needy at its bidding. For with all its efficiency, the Money Economy has a fundamental defect—it warps the aim of our economic activity. What we want as human beings is to make serviceable goods. What we are compelled to do as citizens of the money economy is to make money. And when for any reason it is not profitable to make goods we are forced to sacrifice our

will as human beings to our will as money makers. That is the heart of the paradox.

If I am right about this fundamental matter, I can hardly be wrong in taking an optimistic view of the future. For since the money economy is a complex of human institutions, it is subject to amendment. What we have to do is to find out just how the rules of our own making thwart our wishes and to change them in detail or change them drastically as the case may require. Not that this task is easy. On the contrary, the work of analysis is difficult intellectually and the work of devising remedies and putting them into effect is harder still. But one has slender confidence in the vitality of the race and in the power of scientific method if he thinks a task of this technical sort is beyond man's power.

QUESTIONS

1. "The normal state of trade, a phrase common both in treatises upon economic theory and in the talk of business men, is a mere figment of the imagination." Explain.
2. Professor Mitchell's explanation of the cycle has been called the "self-generating" theory, because the events of any one phase of the cycle are made to explain the subsequent course of the next phase, without much reliance upon outside factors. What, then, is the underlying cause of the business cycle? Is there any, according to this explanation?
3. Are business conditions more or less difficult to forecast than the weather? than the results of a presidential election? of a football game?
4. Business forecasters have made bad mistakes. Is that any reason for saying that prediction is relatively useless?
5. Part of the Dennison policy is to put on heavy advertising campaigns during periods of depression. This policy has apparently enabled the company to avoid some of the customary setbacks of depression. Suppose that all companies adopted this policy. Would depression tend to be eliminated?
6. Why attempt to control the business cycle? Is it not a good thing to have the less efficient concerns weeded out or reorganized in times of depression, thus promoting the "survival of the fittest"?
7. Does control of the business cycle mean the same thing as immediate and wholesale elimination of fluctuations? If this is what it means, how soon do you expect it to come to pass?
8. What is meant by "progressive control" of the cycle? Is progressive control a reality today?
9. Do you agree with Mr. Clark's suggestion of the social desirability of producing below cost rather than not producing at all during depressions? Assuming that its soundness is clearly demon-

strated, can you see any difficulties in persuading enough business men to adopt this policy to make it effective as a method of controlling the cycle?

10. To what extent is the study of business cycles a study of industrial society as a whole? Can you show some interrelations between the problem of controlling the cycle and any of the other problems which have been discussed in previous chapters?

PRICE STABILIZATION

AFTER considering some of the effects of fluctuating prices upon the relations of debtors and creditors, this chapter will be devoted primarily to the question of price stabilization. There will be discussion of:

- (1) The effects of general price movements on borrowers, lenders, and other groups.
- (2) Attempts to account for general price fluctuations.
 - (a) The equation of exchange
 - (b) The quantity theory of money
 - (c) Nonmonetary explanations
- (3) Proposals to prevent shifts in the price level.
- (4) Proposals to mitigate the effects of general price movements.

THERE is a classic story of two Austrian brothers who, shortly after the World War, received a small inheritance to be divided equally between them. One of the brothers was frugal and thrifty; the other was a reckless spendthrift given to strong drink. The frugal brother took his share of the inheritance and placed it in a savings bank. The roisterer invested his share in fine wines and liquors, drank them, and threw the empty bottles into the basement of his house.

A few years later the wine-drinking brother took the empty bottles from the basement, and was able to exchange them for more goods than his brother could obtain with the sum he had thriftily placed in the savings bank. The answer? It is generally called "inflation." The Austrian government had placed paper money in circulation so rapidly that it had become virtually worthless.

Everyone agrees that such a policy as that followed by the Austrian government—a policy followed by most governments at one time or other—wrought terrific injustice. This injustice was most pronounced in the case of debtors and creditors. When a person borrows money he enters into a contract which runs in terms of the monetary unit in use. He almost always agrees to pay at some future date a given number of monetary units, without reference to the purchasing power of the units at the time borrowed or at the time returned. If the purchasing power of money has fallen greatly during the period of the loan, the borrower actually returns to the lender much less than he obtained although he technically fulfills the law of contract.

If the purchasing power of money has risen sharply the borrower repays more than he borrowed.

Such a situation as this, with its attendant injustice, is bound to prevail as long as the general price level is not stable. This has led certain groups to interest themselves in finding out why price levels fluctuate and in devising means of price stabilization, that is, keeping the general average of prices on an even keel instead of bobbing up and down as it does at present. There are those who think they have methods by which prices could be stabilized. They think that such stabilization would not only eliminate the obvious injustice at present prevailing in the relationships between debtors and creditors, and salaried men and employers, but that it would also solve the problem of the business cycle, presented in the last chapter.

In spite of the confidence of the advocates of certain methods of price stabilization, it is extremely doubtful if economic science has advanced to the point where any proposed mechanism for stabilization can be implicitly trusted. Even if stabilization were possible, a few would oppose it, arguing that fluctuating prices have elements of virtue which offset the havoc they cause.

In spite of the extremely tentative nature of the present-day knowledge about the problem of price stabilization—except in flagrant cases of currency manipulation—the importance of the problem entitles it to more detailed attention than it receives in this chapter. Here little more is offered than a nodding acquaintance with the tools at present in use for the study of the relation between monetary factors and price stabilization.

It has been indicated in the two preceding chapters that the general price level shifts continually. Equally clear is the fact that some prices rise faster and farther than others and that, as a result, certain people are hurt. The extent of the injuries may be judged from the articles which follow.

GRAND LARCENY¹

by W. I. King

THE Bureau of Labor index of wholesale prices increased from 97 in December, 1914, to about 247 in May, 1920, a rise of 150 points. Retail prices have increased to a somewhat less extent on account of the delay of rents and a few other customary prices in responding to the new monetary conditions. A moderate estimate would be that dollars, since 1914, have lost fifty-five per cent of their purchasing power at that date. The debts owed by individuals and corporations to others than banks amounted in

¹ Adapted from "Circulating Credit; Its Nature and Relation to the Public Welfare," *American Economic Review*, Vol. X, pages 746-748.

1914 to not less than thirty billions of dollars. The effect of the currency inflation has been to confiscate some sixteen billions of dollars' worth of the property of the creditors (at 1914 prices) and turn it over to the debtors as a gift. Sundry other billions have been transferred from the pay-rolls to the bank accounts of employers; and the owners in 1914 of the twenty-two billions of bank deposits and money have found their ability to buy goods reduced by over one-half, or by about twelve billions, but this loss is partly cancelled by the gains of the borrowing depositors. A moderate estimate, however, of the value of the property which has thus been transferred without any value given in return is twenty-five billions of dollars at the 1914 price level, or sixty billions at the price level of 1920. The transfer has been based on a policy neither more nor less fair and equitable than would be the seizure of the property of all blue-eyed persons and its immediate conveyance to those inhabitants possessing brown eyes, or the robbery of the persons whose names begin with the last half of the alphabet for the benefit of those whose initials chance to be in the A-to-M class.

When one considers the furore created when burglars appropriate the contents of a single safe, it seems strange that the legal filching of a sum amounting to thousands of dollars from each of millions of families has been accomplished with relatively little protest. This is partly explicable because many people are both debtors and creditors and have gained on one account what they have lost on the other. More important still is the fact that most people do not comprehend what has happened. They complain bitterly about high prices, but ascribe the rise to every imaginable cause except the real one. They fail, also, to realize that their bonds and insurance policies, issued by companies that are sound, still promise payment of the same number of dollars, which have really depreciated over one-half. Since, for this class, ignorance is bliss, it is perhaps well that comprehension is not thrust upon them.

DEBTORS, CREDITORS AND THE DANCING DOLLAR ²

by Irving Fisher

You can divide society into two main groups—the creditor or creditor-like class and the debtor or debtor-like class. In the former class is included the creditor in the ordinary sense, the bondholder, the savings-bank depositor, the salaried man, and to some extent the wage earner—in short, the man who stands to receive a fixed number of dollars at a future time. On the other hand, the debtor-like class includes the debtors in the ordinary sense and the stockholders, who are the residual claimants in a corporation, the ordinary enterpriser or independent business man, the farmer, and all others who take what is left after paying off fixed sums according to their contracts. In other words, they are the two classes

² From a hearing before the Committee on Banking and Currency, House of Representatives 68th Congress, February 26, 1924.

of people on opposite sides of the contracts which society has outstanding.

When prices are rising, those in the profit-taking class, or the debtor class, will gain, and when prices are falling they will lose. The opposite is true of the other class. This may be illustrated by taking the case of a joint-stock company which before the war had \$100,000,000 of bonds and \$100,000,000 of stock, both yielding 5 per cent, making a total of \$10,000,000 divided between the stockholders and the bondholders equally.

Assuming that the war doubled prices, at the end of the war the situation would be as follows: The corporation would be receiving twice as much money, because, if it is a typical company, its products would be twice as high in price. It would also have to pay out in expenses twice as much for raw materials, etc., leaving a margin, which we will call profits, between the doubled expenses and the doubled receipts, of double the original amount. In other words, instead of \$10,000,000 to divide as a margin between expenses and receipts they would have \$20,000,000; but when they subdivided that \$20,000,000 between the stockholders and the bondholders the two parts would not be equal, as before, for the bondholders would be restricted by their contracts to their \$5,000,000. That would leave \$15,000,000 to the stockholders.

So we find that, as the result of doubling the prices, the bondholders would be receiving the same sum as before, \$5,000,000, although its purchasing power would only be half as much; and the stockholders would nominally be receiving three times as much as they did before the war, that is, \$15,000,000, instead of \$5,000,000, although in actual purchasing power it would only be one and one-half times as much.

In other words, the fall of the dollar or rise in prices would have taken away 50 per cent of the real value of the bondholder and put 50 per cent more real value into the stockholders' pockets.

So there would be a transfer of value from one set of pockets to the other set of pockets. On the other hand, if prices fall and you carry through the same illustration, prices are cut in two. The result of thus cutting prices in two and doubling the purchasing power of a dollar would be to wipe out all of the profits of the profit taker and double the interest and principal of the bondholder.

What makes the dollar dance? That is a question about which students of price movements are widely disagreed. In the case of such enormous price increases as those in post-war Germany and in the United States following the Civil and Revolutionary Wars, there is general agreement that the principal cause was the action of the government in running the paper money printing presses overtime. There is no such agreement about the causes of the less spectacular price movements which are a day-to-day and month-to-month feature of our price system. Perhaps the sharpest division of opinion about

the causes of these movements is between those who believe that prices are largely determined by the amount of money and credit in circulation, and those who believe they are due to factors bearing on particular prices, such as changing costs of production, changing competitive conditions, changing demand, *et cetera*.

The importance of this difference of opinion becomes apparent when the question of eliminating price fluctuations is raised—a question to which an increasing share of attention is being devoted in the United States. For those who believe that prices are largely determined by the amount of money and credit in circulation, the path toward an answer to this question seems to be in a study of monetary and credit systems. Those taking the other view hold that the key to an understanding of price fluctuations and, hence, a necessary step in any plan to eliminate them lies in the study of changes in production and employment, competitive conditions, inventions, *et cetera*. In our effort to understand the nature of the problem of eliminating price fluctuations, and the conflicting contentions about it, the “equation of exchange” will be useful.

In an attempt to find out why prices in general change, Professor Fisher has worked out an equation which in his opinion includes the important factors bearing on the price level. The left-hand side of this equation he calls the “money side,” the right-hand, the “goods side.” The two are equal because the total of dollar payments for goods just equals the total dollars’ worth of neckties, desks and houses sold during the given period. The idea is simple enough when we take a single case and say that a man pays the haberdasher one dollar for one necktie priced at one dollar.

With this central notion in mind—that dollar payments are necessarily equal to dollars’ worth of goods exchanged—we can examine the equation in more detail. It is written,

$$MV \text{ plus } M' V' \text{ equals } PT$$

M represents the amount of circulating media in the form of money (bills and coins).

V the velocity or rate of turnover of money.

M' the amount of circulating media in the form of deposits.

V' the velocity or rate of turnover of deposits.

P the price level.

T the physical volume of trade.

This equation is thus merely a shorthand statement of the fact that during a given period of time the amount of money in circulation times the velocity of money plus the amount of deposits times their

velocity is equal to the product of the price level multiplied by the physical volume of trade.

The left-hand side is much more complicated than it would be if checks were never used—in that case MV would equal PT . If the situation were still simpler and only gold coins were used as money, we could then calculate the total of dollar payments very quickly. We should merely multiply the average number of gold dollars in circulation by the average number of times each coin was used during the period—perhaps a year. The fact that paper money and checks are used should not obscure the central notion—that payments depend on the amount of the circulating media and the rate at which they circulate.

Every time a housewife goes to the cash-and-carry store for butter she must have the wherewithal to pay for it. How much? That depends on two things—the price of the butter and the amount she intends to buy. Similarly, if she wishes to purchase a complete set of house furnishings the same two factors of price and quantity determine the total that she must pay. Generalizing, we may say that the product of the price level multiplied by the physical volume of trade is equal to the total dollars' worth of goods exchanged.

As it stands, this equation does not state that the price level is high because there is a great deal of money and credit in circulation nor does it state the opposite—that there is a great deal of money and credit because the price level is high. This is an issue to be settled before studying the various proposed plans to stabilize the price level. It is a matter of sharp dispute between believers in the long-accepted "quantity theory of money" and their opponents, who advance a variety of other explanations of price level changes.

According to "quantity theorists," the price level is a result rather than a cause of changes in other terms of the equation of exchange. Further than this, they find changes in velocities and trade much less important than those in M (money) and M' (deposits). Assuming that all other factors remain the same, a doubling of M and M' will cause a doubling of P . The algebra is simple. With a thousand dollars of money and credit to be swapped for a thousand sweet apples, the price of sweet apples must be one dollar each; with two thousand dollars the price must be two dollars each. So also with the general price level. "Quantity theorists" hold that if there are a great many dollars each one will be worth very little, *i. e.*, prices in general will be high.

If quantity theorists say that the volumes of money and credit are the factors determining the price level, how do they account for

changes in the amounts of money and credit in circulation? They contend that, apart from national emergencies when governments seek to solve their financial problems by issuing large amounts of paper money backed only by the government's credit, the principal factor determining the amount of currency and credit in circulation is the gold supply. They point to the fact that Federal Reserve banks, for example, must keep a 40-per-cent gold reserve against the Federal Reserve notes they issue, and a reserve of 35 per cent gold against the deposits of their member banks. This means, they say, that any considerable increase of currency or loans to member banks must depend on an increase in the gold reserves of the Federal Reserve banks. They recognize that under exceptional circumstances these bankers' banks may hold a "superabundance of gold"—perhaps twice as much as they are required to keep, as in the 1922-1928 period. In such a case they recognize that gold is not the determining factor in the amount of credit and currency available, but "generally speaking" those who subscribe to the quantity theory would say that the supply of gold is the most significant of the factors which influence the supply of money and credit and hence determine the price level.

History is said to prove that price levels respond quickly to changes in the quantity of money or credit. The clearest cases appear during war periods when governments often run the printing presses night and day to manufacture enough money to pay their way as they go. The following discussion of Confederate currency reports a case of this. The article on German currency describes one method by which passive resistance to French occupation of the Ruhr was financed. It includes some notes concerning the results of that method on the German price level.

CONFEDERATE CURRENCY DEPRECIATION ³

by George C. Eggleston

THE history of the South during the Civil War furnishes one of the best illustrations on record of the disastrous consequences of relying mainly upon the issue of irredeemable paper currency as a means of financing war. There were some slight tax levies, it is true, and some borrowing through the use of bonds; but paper money was looked to from the first as the chief fiscal resource of the government. There was only one difficulty incident to the process of printing treasury notes enough to meet all the expenses of the government, namely, the impossibility of having the notes signed in the Treasury Department as fast as they were needed. There happened, however, to be several thousand young ladies in Richmond

³ Adapted from *A Rebel's Recollections*, Hurd and Houghton, 1874.

willing to accept light and remunerative employment in their homes, and as it was really a matter of small moment whose name the notes bore, they were given out in sheets to these young ladies, who signed and returned them for a consideration. I shall not undertake to guess how many Confederate treasury notes were issued. Indeed, I am credibly informed by a gentleman who was high in office in the Treasury Department that even the secretary himself did not certainly know. The Acts of Congress authorizing issues of currency were the hastily formulated thoughts of a not very wise body of men, and my informant tells me that they were frequently susceptible of widely different construction by different officials. However that may be, it was clearly out of the power of the government ever to redeem the notes, and whatever may have been the state of affairs within the Treasury, nobody outside its precincts ever cared to muddle his head in an attempt to get at exact figures.

We knew only that money was astonishingly abundant. Provisions fell short sometimes, and the supply of clothing was not always as large as we should have liked, but nobody found it difficult to get money enough. It was to be had almost for the asking.

Money was so easily got, and its value was so utterly uncertain, that we were never able to determine what was a fair price for anything. We fell into the habit of paying whatever was asked, knowing that tomorrow we should have to pay more. Speculation became the easiest and surest thing imaginable. The speculator saw no risks of loss. Every article of merchandise rose in value every day, and to buy anything this week and sell it next was to make an enormous profit quite as a matter of course.

The prices which obtained were almost fabulous, and singularly enough there seemed to be no sort of ratio between the values of different articles. I bought coffee at forty dollars and tea at thirty dollars a pound on the same day. My dinner at a hotel cost me twenty dollars, while five dollars gained me a seat in the dress circle of the theatre. I paid one dollar the next morning for a copy of the *Examiner*, but I might have got the *Whig*, *Dispatch*, *Enquirer*, or *Sentinel* for half that sum. For some wretched tallow candles I paid ten dollars a pound. The utter absence of proportion between these several prices is apparent, and I know of no way of explaining it except upon the theory that the unstable character of the money had superinduced a reckless disregard of all value on the part of both buyers and sellers. A facetious friend used to say prices were so high that nobody could see them, and that they "got mixed for want of supervision." He held, however, that the difference between the old and the new order of things was a trifling one. "Before the war," he said, "I went to market with the money in my pocket, and brought back my purchases in a basket; now I take the money in the basket, and bring the things home in my pocket."

The financial condition got steadily worse to the end of the war. I believe the highest price, relatively, I ever saw paid, was for a pair of

boots. A cavalry officer, entering the little country store, found there one pair of boots which fitted him. He inquired the price. "Two hundred dollars," said the merchant. A five-hundred-dollar bill was offered, but the merchant having no smaller bills, could not change it. "Never mind," said the cavalier, "I'll take the boots anyhow. Keep the change; I never let a little matter of three hundred dollars stand in the way of trade."

POST-WAR CURRENCY MANIPULATION IN GERMANY

THE republican government, set up to control the German people following the collapse of the imperial government as a result of defeat in the World War, was neither particularly strong nor popular. It had, none the less, one thing in common with all governments, good and bad. It needed money to conduct its operations. The possible sources from which it might get money to meet governmental expenses were three. It could borrow either from its own citizens or abroad. It could tax the people, and derive revenue in that way. It could print paper money, give it the official government seal, and try to pay its bills with such money. The credit of this new government was not highly regarded either at home or abroad. Consequently it failed in attempts to borrow. It did not have the confidence of the people, who were already heavily burdened as a result of the great sacrifices of four years of war. Any rigorous tax policy would probably have resulted in its prompt overthrow. It would have been a dangerous policy from the point of view of those in office. That left the third alternative, that of printing money, and that is the one which the German government adopted. As the bills which it had to pay came due, it simply ordered the government printer to strike off the necessary number of German marks. What happened as a result of this policy is indicated by the following paragraph from the Report of the Gold and Silver Inquiry Commission of the United States Senate.

"During 1923, as a result of the Ruhr occupation and the financing of passive resistance, the government lost all control over expenditures; the Reichsbank lost control of the printing press as regards the issue of notes. Prices soared, while the purchasing power of the mark practically vanished. Within a year (to November 15, 1923) the treasury's deficit caused an increase in discounted treasury bills from something more than 1,000,000,000,000 marks to over 190,000,000,000,000,000,000 marks; the Reichsbank's circulation swelled from about 1,250,000,000,000 on December 31, 1922 to nearly 500,000,000,000,000,000,000 at the close of 1923. The price index skyrocketed from 147,480 per cent in November, 1922 to 725,700,000 per cent a year later. With such devastation raging in Germany's currency, it is small wonder that the average quotation of the mark in New York for December, 1923, should have declined to 0.000,000,000,023 of a cent, from one-tenth of a cent the year before."

Professor Fisher asserts that increases or decreases in gold, paper money and credit in circulation "explain at least 90 per cent of all the economic history on the subject of price levels that we have available in index numbers." We have just reviewed two clear cases in which the reckless issuing of paper has boosted the price level out of sight. In most situations, however, the evidence is not so clear and there is serious dispute as to what factors really did cause prices to rise or fall. Some of the reasons for doubting the worth of the quantity theory as an adequate explanation of price changes are suggested by a study of the ways in which M (money) and M' (deposits) are determined in the United States now.

All sorts of problems arise concerning factors which have determined the volume of money in circulation in the United States since the organization of the Federal Reserve system. For example, does the amount of Federal Reserve notes in circulation (the flexible part of M) depend on, (a) the supply of gold in the reserve banks, (b) the policy of the Federal Reserve authorities in encouraging or discouraging borrowing by member banks, or (c) the fluctuating demands of business? In support of the opinion that the supply of gold used is most significant, the reserve requirement of 40 per cent gold against Federal Reserve notes in circulation may be cited. The amount of gold sets a limit to the amount of notes that can be issued. Those who hold that Federal Reserve policy is more important can point out that since the organization of the Federal Reserve system the gold reserves have almost continuously been far greater than the law requires. They can say that the Federal Reserve authorities have in the last few years checked borrowing by member banks at certain times and hence kept down their requests for notes. One method used in doing this is to raise rediscount rates. Anyone who desires to defend the view that the volume of Federal Reserve notes varies with fluctuating business may suggest that there is generally plenty of gold reserve, that a slight change in reserve bank discount rates does not matter much to the member bank and that additional Federal Reserve notes are generally issued because the public demands more cash from member banks. Such an argument is in direct opposition to the notion that the quantity of money determines the price level. For if the volume of Federal Reserve notes in circulation depends on the fluctuating demands of business for currency, and these demands are dependent in part on the prices of goods, then it appears that the price level is determining the amount of currency in circulation. It will be worth while to see how the *Federal Reserve Bulletin*, published by the Federal Reserve Board, interprets this situation.

CURRENCY UNDER THE FEDERAL RESERVE SYSTEM⁴

UNDER the existing banking and currency system, member banks carry only the necessary minimum of cash in their vaults. Currency in the tills of member banks does not count as reserve, and the entire legal reserves required against the deposit liabilities of these banks are carried as balances at the reserve banks. Since commercial banks, as profit-making institutions, do not as a rule leave any considerable volume of their resources unnecessarily unproductive, it is the practice of member banks to carry in their own vaults only such an amount of currency as is required by the day-to-day needs of their customers. Any surplus above this amount is sent to the reserve banks to be credited to the members' reserve account. When, on the other hand, the demand for currency at the member banks increases and cash in their tills is reduced by withdrawals on the part of their customers in excess of cash deposits, the member banks apply to the reserve bank for currency to be charged against their reserve balances. The fact that currency does not become legal reserve until it is deposited with the reserve banks insures the prompt return of currency in excess of actual needs to the reserve banks. Member banks, furthermore, are assured against a currency shortage, since reserve balances with the reserve banks can always be drawn upon to obtain currency, and when additional balances are required they can be created through the discount of eligible paper with the reserve banks. Banks not belonging to the Federal Reserve System both in obtaining and in withdrawing currency generally deal through their correspondents, most of whom are member banks.

The general public also keeps on hand only such an amount of cash as is needed for pocket money, till money, and payroll requirements. With the growth of the banking habit and of the custom of payment by check for the greater part of purchases, and with hoarding of currency not prevalent in this country, all cash in the hands of the public in excess of immediate needs is deposited with the banks, which in turn, as already stated, send to the reserve banks all the currency above their own current requirements. As a consequence, practically no currency remains in circulation when it is not needed for the transaction of current business, and all redundant currency is promptly absorbed by the reserve banks. Under this system the changing needs of the community for hand-to-hand money are quickly felt at the reserve banks, where receipts and shipments of currency form a sensitive barometer of the extent to which the community is withdrawing its deposits in the form of pocket money and thus reflect changes in the activity of trade and industry. The demand for increases in the volume of currency outstanding, therefore, arises not from the member banks nor from the reserve banks, but from the public; and the amount of currency in circulation is at all times in close adjustment to the needs of the public for

⁴ From the *Federal Reserve Bulletin*, issued by the Federal Reserve Board at Washington, D. C., July, 1926.

hand-to-hand money. It fluctuates widely from day to day and varies with holiday and seasonal demands as well as with longer time changes in the volume of business activity and in the level of retail prices. The Federal Reserve banks may be described, from the point of view of their relation to currency, as reservoirs to which the public turns for additional currency when its requirements increase, and to which it returns excess currency when it is no longer needed. In both cases the initiative comes from the public, and the function of the reserve banks is merely to facilitate the prompt adjustment between the public's demand for currency and its volume in circulation.

It is with changes in the volume of those phases of the country's business in which currency is generally used that changes in the volume of currency are in particularly close adjustment. The vast majority of commercial transactions in this country, including the assembling and distribution of goods from the initial purchases of raw materials through the various manufacturing processes to the delivery from wholesaler to retailer, are paid for largely by check and call for little currency. Investment transactions and the sale to the consumers of commodities such as real estate and automobiles are likewise paid for largely by means of checks. Industrial pay rolls, on the other hand, as well as wage payments for harvesting, holiday expenses, and retail merchandising are handled largely by means of currency, and it is fluctuations in the volume of these lines of activity at the prevailing wage and price levels that are chiefly reflected in changes in the volume of money in circulation.

Changes in the volume of currency in circulation, therefore, reflect those movements in the business situation that lead to changes in the need for hand-to-hand money. Each year there is the January drop, when retail trade falls off after the holidays, inventories are being taken, till-money requirements of merchants are low, and pay rolls decline. This is usually followed by a rise during the succeeding spring months, which reflects chiefly larger pay rolls consequent upon the usual spring increase in the activity of manufacturing and outdoor industries. July and August mark the lowest point in circulation during the year, largely because the summer is the dull season in retail trade. During the later months of the year there is a steady increase, reflecting harvesting requirements, larger pay rolls, and the growth of retail trade preceding the Christmas holidays.

It seems clear that war-time issues of paper money drive prices sky high. In the case of Federal Reserve notes it does not appear so certain that changes in the amount of currency cause changes in the price level. Rather it seems that they are generally, in part at least, the result of changes in the price level. *M* (money) may influence *P* (the price level) or may be determined by it.

Of course, in this country checks are used much more than cash, so

the next question is, "Does volume of deposits (M') determine the price level or does it depend on it?" The answer to that question is very much in doubt. The assertion is frequently made that a plentiful supply of credit, reflected in low interest rates and liberality in granting loans, encourages business and speculation, and raises prices. High interest rates, on the other hand, discourage borrowing and decrease deposits. Eventually prices fall. It is often argued that the amount of credit is always the determining factor. Some doubts as to the accuracy of this quantity-theory argument are expressed in the two statements below. One describes the relation between prices and the volume of credit in the 1921-1926 period and the other suggests that the effect of credit on prices is largely a matter of the industrial circumstances of the time.

PRICES AND CREDIT, 1921 TO 1926 ⁵

by Walter W. Stewart

IN THE middle of 1921 production increased first, then prices, then credit. On the decline in 1923 production decreased first, then prices, and subsequently credit. In 1925, also, production moved down very abruptly early in the year. Prices went to a low point about the middle of the year, but the volume of borrowing for commercial purposes continued to increase until October, and reached its peak at that time. The conclusion I want to draw from this analysis is that during these recent years the price level has been less under the influence of credit than under the influence of production. When production reached such a low point that stocks were exhausted, the continuance of demand reflected itself in an increase in industrial output and subsequently in rising prices. Then later, when production was carried to the point where the market became stale, the level of output and the price levels decreased, and neither the rise nor the fall of credit was the decisive factor.

COMMERCIAL CREDITS AND PRICES ⁶

by H. L. Reed

THE effect of increasing commercial credits on prices is largely a matter of the industrial circumstances of the time. In some situations easy credit must be followed by rising prices; in others it may not be so followed. Let us assume that we are in the midst of a boom period and that manufacturers have pushed production as far as can be without increasing the expenses per unit of output, that additional good labor is not

⁵ Adapted from Hearings before the Committee on Banking and Currency of the House of Representatives, 69th Congress, First Session on H. R. 7895, Government Printing Office, Washington, D. C., 1926.

⁶ From a communication to the *American Economic Review*, Vol. XI, pages 91-93,

easily available, and that employment of further labor is expensive, if for no other reason, because the best was absorbed first. Certain necessary materials can be obtained in additional quantities only by bidding against manufacturers in other industries who are also behind in their orders. Finally, it may be that extra-production will necessitate enlargement of building, changes in machinery, or other expensive alterations.

Under these circumstances retailers, jobbers, or wholesalers are informed by the banks that they will be treated liberally in their requests for commercial credit. Obviously this is likely to encourage lively bidding between the retailers for the limited quantity of available goods. Taking advantage of this situation the manufacturers shove up prices, and all down the line from producer to consumer this advance is passed along. With the same easy credits, there is gradually diffused throughout the community the buying power in terms of dollars, in anticipation of which retailers bid for goods and fix their prices. Even though the goods are not withheld indefinitely from the market, they make their appearance under changed conditions of supply and demand.

Clearly the situation would have been different if manufacturers had known that retailers could obtain commercial credit only with difficulty. There would not then have been the same opportunity to play off one buyer against another, and the market could not have been made so easily a sellers' market. Why, then, assert that banks with their credit offers did not help to create the rise in prices?

Of course, under differing industrial conditions liberal credit offers need not have the same effects. Suppose the situation is one in which additional labor and materials are easily available, that new orders need not necessitate enlargements of plants or changes in equipment. Larger production may create possibilities of economy in the amount of overhead or fixed charges allocated to each unit of output. If, under these circumstances, retailers are stimulated to a reasonable extent by information that the required credit will be forthcoming, prices are not necessarily disturbed. As a matter of fact, they may even be lowered in that the retailers' orders may make possible production under conditions of greater efficiency. It may no longer be a matter of setting up greater dollar competition for the limited quantity of goods but, rather, using more dollars to effect the transfer of more goods. Easy and abundant credit may thus affect either the level of prices or the volume of production, or both. Undoubtedly the situations in which price and production are both affected outnumber the cases in which abundant credit works upon the one alone. But as to which is most influenced, an *a priori* answer is not possible. It all depends on the industrial situation.

From this brief survey of money and credit conditions in their relation to prices it appears that monetary factors are not always the cause of changes in the price level. A review of the chapter on busi-

ness cycles will immediately suggest numerous other factors which must be considered in accounting for general price movements. To these may be added inventions, immigration laws, programs of population control and countless other things affecting price movements over longer periods. Those who are skeptical of the quantity theory stress nonmonetary factors influencing individual prices and claim that the price level is, after all, only an average of individual prices. They insist that generally the volume of money and credit depends on prices and trade. For this reason they would study all the market conditions affecting the price of important individual commodities or groups of commodities, rather than focus their attention on the gold supply and on Federal Reserve policy.

At the present time it is obviously impossible to reach unanimous agreement about the dominant cause of general price fluctuations. Does this mean that people have been content to await the decision on the last fine point of argument and to do nothing about it in the meantime? Some people claim the Federal Reserve authorities have steadied prices and trade since 1922. Certainly the extreme variations of 1920 and 1921 have not been repeated. Others insist that credit policies have had little effect on the situation. They point to the spread of statistical information and the growth of hand-to-mouth buying as important factors in keeping general trade on a high level.

How can further improvements be planned if people do not agree as to the causes of difficulty or as to the effectiveness of various medicines? Quantity theorists, believing in the great importance of money and credit, propose to regulate the amount of gold in the dollar and to order the Federal Reserve system to use its power to stabilize the price level. Those who disagree focus their attention chiefly on the price movements occurring over short periods and see the problem as a larger one—that of seeking out all the causes of business cycles and controlling these as well as may be. Some of their findings were reported in the last chapter. At this point the most recent proposals to control the price level by regulating money and credit will be considered.

For a number of years Professor Fisher has fought for his plan to stabilize the price level by varying the amount of gold in the dollar at frequent intervals in response to price-level shifts. One crucial point in the argument has been that the amount of credit depended on the volume of gold reserves available—dollars' worth of gold reserves. In 1921-1924 much gold was imported without a corresponding expansion of bank credit or of prices. That experience has thrown further doubt on the worth of the "stabilized dollar" (or "commodity dollar") scheme, already not popular in all quarters. Professor Fisher still

sponsors this plan, but he is also in favor of a measure (the Strong Bill) directing the Federal Reserve system to use all its powers to stabilize the price level. The failure of gold imports to raise prices is laid to the influence of the Federal Reserve banking authorities. They are said to control, in large measure, the amount of credit in circulation, and hence prices in general. Having power to raise or lower prices or to stabilize them, the Federal Reserve authorities ought to be directed to use their power to stabilize prices. So runs the argument.

Opponents to the Bill assert that the Federal Reserve authorities do not have and never have had the economic power to control general prices to any marked degree and should not be held responsible for something they cannot control. The following statements present some of these arguments for and against the Strong Bill.

THE STRONG BILL ⁷

A BILL to amend paragraph (d) of Section 14 of the Federal Reserve Act, as amended, to provide for the stabilizing of the price level for commodities in general.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That paragraph (d) of Section 14 of the Federal Reserve Act, as amended, is amended to read as follows:

“(d) To establish from time to time, subject to review and determination of the Federal Reserve Board, a rate of discount to be charged by such bank for each class of paper, which shall be made with a view to accommodating commerce, and promoting a stable price level for commodities in general. All of the powers of the Federal Reserve System shall be used for promoting stability in the price level.”

This amendment strikes from the existing law the words “and business,” and adds “and promoting a stable price level for commodities in general. All of the powers of the Federal Reserve System shall be used for promoting stability in the price level.”

THE PURPOSE IN MIND ⁸

by Congressman James G. Strong

I do not claim that the idea of this Bill is an original one. It is simply an effort to renew the various attempts that have been suggested to carry out the direction of the Constitution wherein Congress is authorized “to coin money and regulate the value thereof.”

⁷ Adapted from Hearings before the House Committee on Banking and Currency, H. R. 7895, *op. cit.*

⁸ From Hearings before the House Committee on Banking and Currency, 69th Congress, H.R. 7895, *op. cit.*

Congress has directed "the coinage of money," but the only effort to "regulate the value thereof" was provided in the Federal Reserve Act, and I feel that the provisions therein set up have been used rather in the interest of the creditor class instead of for the purpose of the stabilization of the purchasing power of our money, which certainly is the great need of all classes of our citizens save, perhaps, those who speculate therein.

The language of the Bill is a direction from Congress to the Federal Reserve System, which is the agent it has set up, to establish such rate of discount to be charged the banks for each class of paper with a view to accommodating commerce and promoting a stable price level for commodities in general with a further instruction "that all powers of the Federal Reserve system shall be used for promoting stability in the price level."

The Federal Reserve system has the power of increasing or decreasing the volume of money and regulating the rental or cost value thereof, and also powers of publicity that I feel can be used to better regulate the stability of the price level of commodities in general, or, what is the same thing, the purchasing power of our dollar.

I anticipate that those who have come to believe that the Federal Reserve system, though created by Congress, has become a sacred thing that Congress should not seek to change or improve upon, may attempt to prejudice the country by pretending to believe that the purpose of this Bill is to fix prices or, perhaps, stabilize individual prices like agricultural products. Nothing of this sort is contemplated; the prices of individual commodities, as they respond to supply and demand, are solely under the control of such law. The general price level—that is, the purchasing power of the dollar—however, changes only with some fundamental variation in relation of money as a whole to commodities as a whole and may have no true economic cause.

ARGUMENTS FOR THE STRONG BILL ⁹

by W. T. Foster and Waddill Catchings

ALREADY the Federal Reserve Board has exercised some control over prices. Early in 1923 business appeared to be in the first stage of a major boom. The Harvard price index of business cycles, starting at 54.3 in April, 1922, rose to 78.9 in February, 1923. Wholesale prices rose from 143 to 159. Employment moved up rapidly. More important still, volume of manufactures rose in one month (February to March) from 109 to 117, and thus reached the highest point in three years. The volume of manufacture of consumption goods, which continued above normal through 1922, rose sharply from 101 in January to 115 in March. Production as a whole was rapidly moving toward the point where the selling

⁹ Adapted from an article in the *Harvard Business Review*, April 1924. NOTE: A later and more extensive discussion of the same subject by the same authors is found in Chapter IX of *Business Without a Buyer*, published in 1927 by the Pollak Foundation, Newton 58, Mass.

of increased stocks to consumers at the higher price level might become impossible.

This abrupt upward movement of the early months of 1923 marks the rapid progress of business toward conditions in which increased volume of currency and bank credit would still be accompanied by higher prices but no longer by increased production. If the advance had continued at this rate for another twelve months, we should have had hectic "prosperity," with another period of severe depression just ahead. We should have suffered again the inevitable evils of monetary inflation.

But the rise of prices of the early months of 1923 did not continue. Neither was there a general slump in business. There was, indeed, an unfortunate recession—a more than seasonal decline—in the middle of the year; but it was a decline from a high level to a level that was still high, and it did not lead to a depression. The net result of the forces that, somehow or other, were brought to bear at this time was a year of sound economic conditions. The physical volume of trade, all branches included, was 9 per cent above normal; and freight-car loadings, the most comprehensive of indexes, broke all records. Employment, wages, trade and profits were sustained, in general, on a high level.

That all this was accomplished without resort to the treacherous stimulus of inflation is shown by the fact that our general price indexes, during the last three-quarters of the year, moved within a narrow range. At the same time the chief monetary factors showed notable stability.

How was this unusual stability achieved? How did it happen that the rise of prices, once well under way early in 1923, did not, like the similar movement a few years before, carry us forward to a boom, a collapse, and a depression?

One thing, at least, is clear. The restraining influence was not the reserve ratio. We had enough gold to form the basis of a larger volume of currency and bank credit than we had ever used before. Within the reserve requirements of the Federal Reserve system the price level could have been carried about twice as high as the highest point of 1923. It is equally clear, from the statistics now available, that the curbing of the inflationary movement was not due chiefly to conditions in Europe, or to foreign trade, or to the automatic operations of business financing, or to a consumers' strike against high prices.

In seeking to explain what happened early in 1923, we must take account of the state of mind of bankers and business men. Their painful memories of the inflation and deflation of a few years before were still vivid. In this early stage of what appeared to be a boom, caution was urged from many influential quarters. The United States Department of Commerce wisely advocated the postponement of construction wherever feasible. Some forecasting agencies and some trade associations advised caution. Various banks in their monthly letters gave reminders of the disasters of 1920.

Still more cautious became the business world when the rediscount rates were raised. In February and March, 1923, the reserve banks of New

York, Boston, and San Francisco raised their rates. Interest rates of commercial banks rose in February and again in March. Rates on call loans, on 60 to 90 days paper and on 4 to 6 months paper, were all higher in March than in any month of the previous year. The raising of money rates was followed promptly by a curbing of the upward movement of prices and production.

Not so generally understood is the fact that the open-market operations of the Federal Reserve banks in the first half of 1923 tended to curb the inflationary movement, and, in the second half of the year, tended to sustain business on its new level. Early in January the Federal Reserve banks held open-market acceptances and United States securities to the value of \$734,000,000. These they reduced steadily throughout the period of incipient business boom. By July the total holdings were less than \$300,000,000. Between October 17 and the end of the year, however, the holdings increased from about \$300,000,000 to \$473,000,000. Thus the open-market operations took money out of general circulation at a time when, according to all our indexes, money in circulation was increasing faster than the volume of trade; and, later in the year, when these same guides pointed in the other direction, the open-market operations put more money into circulation.

In view of the measure of success already achieved by reserve authorities, it is easy to understand why some men oppose any change in our official monetary policy. Why not let well enough alone? What would be gained now by Congressional action directing the board to use its powers toward preventing sustained departures from the prevailing price level?

There are a number of pertinent answers to this question. First of all, the best time to take action toward preventing violent movements of the price level is when the price level is fairly stable. At such a time the immediate effects of the proposed action are slight and no criticism of existing authorities is implied. The measure can be considered on its merits, comparatively free from sectional economic and partisan political complications; and the measure can go into effect without disturbance to business.

In the second place, no matter how high our record may be for the present Secretary of the Treasury and the present members of the Federal Reserve Board, we have no guarantees concerning the qualifications of future members. We cannot make sure that future members will understand the relation of movements of the price level to human welfare or the relation of their own policies to either, or that they will resist the pressure to act in what appears to be the special interests of a class or of a political party. But we can make sure that no doubt exists concerning the desirability of a stable price level. We can direct the board to use rediscount rates and open-market purchases and sales for the specific purpose of safeguarding the purchasing power of the dollar. And then, by means of an official index number of prices, published weekly and improved as a result of further statistical research, we can measure with

a high degree of accuracy the progress of the country in achieving this purpose.

At all times there are many men who are convinced that their business would be greatly "accommodated" by easy money, and they see no reason except a "money monopoly" why the Government should not give them what they want. Their program seems to have been vigorously supported by organized propaganda. These more-money enthusiasts have had their way in Central Europe. They may at any time gain the upper hand in the United States. Before that time comes the country ought to be committed to the principle of preventing by means of currency and bank-credit control such fluctuations as are avoidable—note that we say, such fluctuations as are avoidable.

In estimating the future need for such an avowed policy, we must take account of the fact that in 1923, when the discount rate and open-market policies of the reserve banks had their part in preventing the sharp upward movement of early 1923 from going forward to a boom and a collapse, the board and the banks were aided by a spirit of caution that ruled the business world. When the next marked movement toward inflation sets in—and it is sure to come sooner or later—the people are not likely to regard it so suspiciously as they did the movement of 1923. This is a third reason for taking definite action now. In 1923 men were cautious because prices were still high compared with 1913, and some thought that there would be a return to pre-war levels. Furthermore, men were cautious because they had not recovered from the disaster of 1920. But every year the memories of the sufferings of 1920 and 1921 become less vivid. The memories of business men are traditionally short. Many men denounced the Federal Reserve banks for raising rates in 1923. Instead of giving thanks because these restraining influences had their part in saving us from excesses and consequent reverses, these critics point to the year's record as evidence that such caution was unnecessary. What a pity, they say, that the alarmists set up the bogey of inflation; for there was no inflation! They could as reasonably condemn the flood-prevention measures taken by the people of Dayton on the ground that there has since been no flood at Dayton.

Under present conditions, our vast gold reserves are a menace. There is one way, however, in which they can be made to serve the interests, not only of the United States but of the world; for they are large enough to make a policy of curbing fluctuations immediately practicable, without endangering the gold standard or changing the weight of gold behind the dollar. And that is a fourth reason for acting now. It seems probable that the present reserves would be sufficient to maintain approximately the present purchasing power of the dollar for at least a generation to come. Perhaps by that time the whole country would be convinced that a stable money is a sound money. The country would then be less dependent on gold reserves as safeguards against inflation, and in a better position to adopt additional methods, if necessary—perhaps new legal reserve ratios—for controlling long-time price movements and exchange rates.

Still, it must always be borne in mind that the utmost the Federal Reserve Board could do might be of little effect unless important influences beyond their control worked toward the same end. There are occasions when nothing the board could do would have far-reaching effect. On the other hand, there are times, such as the spring of 1923, when their action might afford the needed leadership or, in view of the attendant circumstances, might be a sufficient contributing cause to accomplish the purpose.

AIMS AND EFFECTS OF FEDERAL RESERVE POLICY¹⁰

by W. W. Stewart

I FEEL that any worth-while discussion of Federal Reserve policy that undertakes to be broad has to begin with recognizing that there must be some goal or some general aim which the system has in mind to accomplish. There seems to be in this proposal the suggestion that the aim should be to stabilize the general level of commodity prices. I would be inclined to state the aim and responsibility of the Federal Reserve system somewhat differently. I would say that the responsibility that rests upon central banks abroad and the Federal Reserve system in this country is primarily one of maintenance of sound credit conditions.

To test whether or not the credit condition is sound, one has to begin by determining the volume of production, and whether or not that production is moving promptly through the channels of distribution and whether or not inventories are accumulating. I can see, as an example, a situation where prices may not be advancing, but, on the other hand, declining, yet inventories of commodities may be accumulating. If additional credit were granted, it would be used for the purpose of adding to the stock, and would mean simply encouraging the accumulation of additional stocks.

In general, my feeling is that the only safe guide for the Federal Reserve system is to keep its eye on the credit situation. Prices and their movement have a bearing on that problem partly because they serve as an indicator of what is happening in the credit situation. But production, employment, pay roll, money rates, retail trade, wholesale trade, inventories, commercial loans all have their meaning from the standpoint of the Federal Reserve policy on the credit situation. Any attempt to extend the responsibilities of the Federal Reserve system to include a wider and more difficult field, such as price stabilization, I think the Federal Reserve ought not to accept, because I think the power of the Federal Reserve and the responsibility of the Federal Reserve relate to the credit situation.

Has Federal Reserve policy been the controlling influence upon the movement of prices in the 1922-1926 period, as some people assert? I

¹⁰ Adapted from Hearings before the House Committee on Banking and Currency, 69th Congress, H.R. 7895, *op. cit.*

put the question in this form: The change in the New York discount rate covered a range from $4\frac{1}{2}$ to 3 per cent. There was a change in the holdings of open-market securities in the amount of half a billion dollars, largely compensated for by the changes in the borrowing by member banks. Can the amount of change in discount rates and open-market holdings be regarded as having had decisive influence upon the general movement of prices? My answer categorically is, no. To believe that it did is to put too much faith in the control of credit over prices and to make the problem appear altogether too simple.

It has been claimed that in 1923 the Federal Board checked the rise in prices. In that year, with Europe not an active purchaser of goods in this market and with agricultural buying power at a low level, with production proceeding at a rate more rapid than the distribution to ultimate consumers, and with the consequent accumulation of inventories, we did not have a business situation in this country which could have given rise to any marked inflation, no matter how abundant the volume of credit was. There was no reason to believe that under conditions prevailing at that time, even if the discount rate had not been advanced and open-market holdings had not been reduced, the existing circumstances would have given rise to any further considerable inflation in the United States. In fact, the turn of commodity prices in 1923 was not, in my judgment, due primarily to a change in credit conditions, but to the fact that the level of output in industry had been carried to the point where it was not possible to sell that output at the prevailing level of prices. The maladjustment between agricultural and nonagricultural prices limited the buying power of farmers, and conditions in Europe limited the foreign buying power, so there was not a sustained demand for the American industrial output. Prices were more under the influence of this excess production than the excess of credit or gold or the credit policy of the reserve system.

PRICE CONTROL AND THE FEDERAL RESERVE SYSTEM ¹¹

by Ogden L. Mills

A BILL was introduced in the Sixty-Ninth Congress to amend the Federal Reserve Act by providing that one of the duties of the Federal Reserve system shall be to promote a stable price level for commodities in general. Now the propagandists are busy. This propaganda, like most propaganda, contains the usual special appeal to classes or groups dissatisfied, for one reason or other, with existing conditions. Thus, for instance, I have seen an article in which agricultural prices are sought to be directly related to the open-market operations of the Federal Reserve system.

You see the implication, of course. Prices can be raised by the Federal Reserve Banks, and after they have been raised they can be maintained

¹¹ Adapted from a speech before the Bond Club in New York City, May 27, 1927.

at a given level. Of course, the thoughtful and intelligent gentlemen who advance the theory that prices can be controlled by credit operations are talking of the general price level. None of them would seriously contend that individual prices can be so controlled. But if their theory is to achieve popularity, it will be because different groups of the public will apply it to the particular prices in which they are interested. There is where a grave danger lies. Few people are interested in the general price level. Everyone is interested in the level of some particular price. Thus, the farmer would like to see high prices for agricultural commodities and a low level for the articles he has to buy. The wage-earner wants high wages and a reduced cost of living. The manufacturer desires low-priced raw materials and high-priced finished products; and so on down the line. Can you imagine what will happen to the Federal Reserve system, once the idea is accepted that the officers of the system control a lever with which they can move particular prices up or down at will?

Fortunately, no such power exists. However, this much may be admitted. Holding the reserves of many banks, and the gold reserve of the country, and being the source of additional credit for business purposes, and the means of retiring that credit, the Federal Reserve system, by changes in the rate of discount and preliminary purchases or sales of securities, has the power to influence to some extent at times the total volume of credit and its cost. But it should be noted that it has little or no control over the directions credit will take, for that lies wholly in the hands of the individual private banks. To me it seems that it is a long, long jump from a limited control over the quantity and costs of credit to absolute control of commodity prices. To quote Governor Strong, "The only definite price advance which can be attributed to cheap money is in the security market." And I might add that even cheap money cannot push stocks up indefinitely.

Some three weeks ago I read an article by Professor Allyn Young, in which he said, "The Federal Reserve system appears to be safe for awhile from the attacks of its enemies. It has more to fear from the solicitude of its friends." Professor Young was referring specifically to this legislation intended to instruct the Federal Reserve Banks to keep stable some arbitrary index of price variations, and his statement seemed to me to be a singularly happy way of describing the existing situation. After all, it is extremely dangerous to the popularity and permanence of any institution or system to have even its friends attribute to it powers which it doesn't possess, and so lay it open to the charge either of abusing them or of failing to attain possible results.

Proposals to stabilize the general price level involve far-reaching changes in the present economic structure. If, as some contend, to accomplish this money and credit alone need be regulated, the Federal Reserve authorities might be given the job of trying to stabilize the

price level. If, on the other hand, interest rates and credit policies do not have much effect, then stabilization of prices calls for control of a more inclusive sort, such as that exercised during the war. The whole problem is still very much in dispute. Meanwhile, it seems feasible to some people to correct the apparent evils of the present situation by having contracts made on a basis of purchasing power. But vexing questions must be answered. Shall purchasing power be indicated by an index of wholesale prices or of retail prices? Or of cost of living for the average man? Who is the "average man?" If the lender, on repayment, wants to use his funds to buy more securities, what does he care about the prices of butter and cheese?

Inability to construct a simple index that will fit all cases precisely does not, however, constitute a conclusive argument against plans to make contracts run in terms of purchasing power. Such contracts, which may possibly mitigate some of the serious effects of price fluctuations, are discussed in the article concluding the chapter.

MITIGATING THE EFFECTS OF GENERAL PRICE FLUCTUATIONS¹²

by Irving Fisher

THE Philadelphia Rapid Transit Company has recently tried to stabilize the wages it pays. The company is getting up a special index number of the cost of living in Philadelphia for people with incomes such as its employees have; and hereafter the Rapid Transit Company of Philadelphia will have all its employees paid according to that index number. This is a method of correcting the instability but not of preventing it. After the instability is shown, this index number is used to make an adjustment. Of course you know that was done by the War Labor Board during the war, and in Europe, especially, affecting some millions of employees in England alone. This is the first time since we have become adjusted after the war that any great company, as far as I know, has taken this up, and the company has gone into it from a scientific standpoint.

As you doubtless know, bondholders have been particularly hard hit by changes in the price level. Professor Harmack, of Germany, the great theologian, is now penniless because his fortune was invested in bonds, supposed to be the safest thing possible. That does not mean that there were defaults in the bonds, but the purchasing power of the mark dropped 99 per cent and more. This man had several hundred thousand marks invested in bonds, but they are practically worthless for the purchase of bread and butter today.

The use of stabilized bonds is one method of correcting the instability

¹² Adapted from Hearings before House Committee on Banking and Currency, 69th Congress, *op. cit.*

of the debtor-creditor relationship. It is a scheme whereby the man owning the bond, instead of getting \$50 per year, of uncertain purchasing power, will get enough money to buy what \$50 would buy today, and so if the price level went up twofold he would get \$100, and if the price level was cut in two, he would get \$25. The United States Department of Labor index number is used. Here is a copy of part of the agreement contained in a bond issued by the Rand-Kardex Company (Inc.):

UNITED STATES OF AMERICA, STATE OF DELAWARE

Rand Kardex Company (Inc.)

7 per cent 30-year stabilized debenture bonds

(Registered and safeguarded as to purchasing power of both principal and interest)

If as of any due date the index number of the prices of commodities shall remain at approximately the present level—that is to say, if it does not rise or fall as much as one-tenth part of the level fixed as of July 1, 1925, *i. e.*, 157.5—then the amount to be paid as principal shall be \$1,000, and the amount to be paid as interest on any quarterly interest date shall be \$17.50.

In case the index number as of any due date shall be found to be more or less than that fixed for July 1, 1925, by as much as one-tenth part of said index number of July 1, 1925, then for every full one-tenth rise or fall of said index number there shall be added or subtracted, respectively, one-tenth of the payment then due, said one-tenth being \$1.75 for any quarterly payment of interest and \$100 for the principal sum. . . .

(NOTE:—These bonds were “called” on April 1, 1926. The reason given for the retirement of these bonds was that a merger brought a change in financial policy and made it possible to retire all bonded indebtedness.)

QUESTIONS

1. If you thought the price level would fall during the next ten years, and had \$5,000 to invest, would you buy common stocks, government bonds, mortgages, or land? Why? How can you tell whether the price level will fall or rise?
2. “An unprecedented number of professional people committed suicide in Germany in 1923.” Can you see any relation between that fact and the price situation in Germany at that time?

3. "A fluctuating price level is particularly harsh on those people who feel that they cannot afford to take the risks involved in the purchase of stocks." Explain.
4. How much does the amount of gold available for reserves affect the price level in this country?
5. "There may be a very great increase in the volume of currency in circulation without any change in the general level of prices." Explain, referring to the reading on currency under the Federal Reserve system.
6. During the war people were urged to buy Liberty bonds on credit. Make an investigation to find out how this procedure increased the amount of credit in circulation. What happened to the general price level during this period? How do you account for the change?
7. Assuming that Federal Reserve authorities can control the expansion of credit by changes in the rediscount rate, when should the board make such changes? Of what value would an index of the physical volume of production be in this connection?
8. Why is a rise in prices very difficult to check? How do you account for the fact that a period of severe business depression is likely to follow a period of rising prices?
9. George Soule argues that a stable price level might be undesirable, that improvements in machinery should lead to lower and lower prices. Do they? Should they?
10. How far do you hold the Federal Reserve system responsible for fluctuations in (a) the general price level; (b) relative prices?
11. The stabilized bond seems to be the simple solution of one problem arising out of the fact that not all prices change together. Do you see valid objections to it? Why has it not been adopted?
12. How do employees ordinarily pay their bills if wage rates do not fluctuate closely with the cost of living?

CHAPTER XVII

DIVISION OF INCOME

THIS chapter is the first of a series devoted to the income received from economic activity, the conflicting aspirations of different groups for larger shares, and devices used in efforts to realize these aspirations. It will be principally concerned with what income is and with the character of the struggle over its division, discussing:

- (1) The nature of income.
- (2) Money income in the United States and some of the problems involved in its measurement.
- (3) The struggle for larger shares of income.

SINCE the dawn of history men have been debating the question, "What is the good life?" Agreement has yet to be reached. Some men find their satisfaction in a type of righteousness which they believe will assure the conquest of heaven. Others follow the creed, "Eat, drink, and be merry, for tomorrow we die." They worry not about the life to come. Others say the good life consists in a maximum of self-expression, whatever that may mean, and bend their careers in that direction.

If the question of what is a satisfactory life could be settled, and all men would agree that the standards established were the correct ones, the next phase of our study would be measurably simplified. This phase has to do with the benefits derived from modern economic life by the various people participating in it, that is, with the division of income.¹

In previous chapters we have seen something of the character of modern economic life. We have observed our productive system changing from a relatively simple structure, with limited division of labor along agricultural, handicraft and commercial lines, to a highly specialized machine process of production for impersonal and generally remote markets. We have seen how, in this scheme of production, price occupies a pivotal place, and we have studied in considerable detail the working of the price system.

Now there come questions relating to the division of benefits derived from all this activity. At the outset we are confronted with the fact that people disagree over what a "benefit" is. Diogenes, according to

¹ Economists generally use the term "distribution" in referring to the sharing of the proceeds, but that word is also used extensively to describe marketing activities. "Division" seems a less confusing term.

all accounts, lived a very complacent and cheerful life, domiciled in a tub. And the Scriptures tell us, "Blessed are the meek for they shall inherit the Kingdom of Heaven." Who knows but that the herdsman is happier than any king? And not knowing, who can say what are the benefits of modern economic life?

The simple fact is that no one can discourse with any degree of final authority on the subject of the satisfactions derived from life by other people. Until it is possible to establish standards of satisfaction and assert with authority that one man is, say, twenty-five per cent more satisfied with life than another, the question of the ultimate incomes enjoyed by different individuals and communities will remain unsolved.

Does the fact that it is at present impossible to measure degrees of satisfaction, and hence the ultimate incomes received by various people, mean that there is nothing to be gained from a study of the division of income arising from economic activity? It does not. Although hod carriers, so far as we know, may be happier as a class than bank presidents, there are certain things with which bank presidents are more amply equipped and which hod carriers would like to share in the same proportions. Among these are comfortable homes, pleasant places in which to work, opportunities for recreation and travel, and well-tailored clothes. It may not be that, as the tailors claim, "clothes make the man," but, none the less, there is substantial agreement that opportunities to wear fine serges and worsteds are more to be desired than opportunities to wear denim overalls. And the opportunity to make a living by "conferences" held in deep leather chairs around mahogany tables in comfortable offices pleasantly blue with cigar smoke, is generally esteemed more highly than a life devoted to tending machines in the din of a knitting mill or a steel plant.

Certain satisfactions to be derived from economic activity are, then, popularly sought after. These include the satisfactions to be derived from (1) working under favorable conditions, and (2) being able to command considerable amounts of goods and services for one's self and one's family. Under modern conditions a large percentage of the population spends a third or more of its life on the job. Work in a factory where the pace is not too fast and where surroundings are clean, light, and safe, may provide satisfactions not to be obtained from a job in a factory where employees are forced to rush, and to work in dirty and dangerous surroundings. In other words, the amount of a man's income depends in substantial measure upon the conditions under which he toils. That this part of one's income is important appears in a later chapter concerning wage workers, who

devote a substantial part of their efforts to improving the conditions under which they work.

In pursuit of the second sort of satisfaction, the command of goods and services, the various groups are continually demanding larger shares of the total supply available. In considering this controversy over group shares the first step might well be to figure out the total of goods and services to be divided in a certain period. Unfortunately such a project meets with a real difficulty at the very start. How can battleships, band concerts, steel rails, jewelry, and chiropractic treatments be handled in computing such a total? Where can the common unit of measurement be found? A table setting down all the goods and services produced in the United States in a day would be altogether too unwieldy to be useful. The next alternative seems to be that of measuring income in terms of money. Dollars' worth of battleships can be added to dollars' worth of diamond necklaces, and the money income of one group can be compared with that of another. Hence, dollar income is most frequently studied in spite of the fact that the dollar is very unstable, as indicated in the discussions of price movements.

When income is computed in dollars, however, the result obtained is at least two steps removed from income in any ultimate sense. A thousand dollars commands varying amounts of things at different times and places. Then, again, the same goods may yield different benefits to their masters in different situations. Apart from misers, people are not interested in getting money for its own sake but rather for its command over goods and services, and this command in turn resolves itself into the satisfactions derived from these things. Further, as noted above, the benefits derived from command over goods reflect only one phase of income, the other having to do with the nature of jobs. When measuring income in terms of money, therefore, we should realize that we are simply scratching the surface of a problem which stands as a challenge to those who would advance social science beyond its present crude state.

Whatever the total money or other income, sharp dispute arises as to how the total is to be divided. Most people demand more, no matter what they are getting. Generally they justify their demands on the ground that they are not receiving a fair return for what they contribute, although sometimes the demand for more income is based upon need. The argument about contributions to the process of production is a continual one, partly because there is no convincing way of measuring the contributions on which the various parties base their claims. When an industrial laborer, operating a weaving machine, asserts, "I am the mainspring of the productive process; without me

nothing could have been produced," the owner of the machine retorts, "Without the machine you would have woven less in six months than you now do in a day; the machine makes the really important contribution." Then perhaps at this point the salesman enters the debate, and announces, "Without me to find people to buy the products, neither the machine nor the worker would be employed. I am really the main-spring of the organization." The dispute over the relative importance of contributions, as it is tossed back and forth, comes more and more to resemble the debate among the legs of a three-legged stool as to which one really was the most essential. Each in turn proved that without him the stool would be useless, and agreement was never reached on which leg was really the most important. So it is with the division of income. The debate rages unceasingly without settling conclusively the points at issue.

The problem would be sufficiently baffling if it comprised simply the division of income among those actually contributing labor to the process of fabricating and distributing goods and services. It is further complicated by the fact that many people who demand—in fact obtain—large shares of income contribute no labor. Instead, they permit the use of property such as machines, buildings, franchises, patent rights, land, *et cetera*, which they may have acquired in any one of a number of methods ranging all the way from an arduous accumulation of savings to a lucky turn of fortune or a bit of theft. In the process of dividing income the claims of property vie with those of labor in the unending struggle for larger shares. Finally, it seems apparent that some individuals, by virtue of their control over property or labor, receive incomes for doing things which add nothing to the total income of the group. What, for example, of the clever individual who, noting the number of travelers who stopped to admire the Natural Bridge in Virginia, bought it and then built a fence about it, charging each visitor fifty cents admission?

Whatever the merits of their claims, the various groups are elbowing, pushing and shoving each other in efforts to enforce these claims. Laborers are shouting "We want more pay," landlords proclaiming "Rents must go up," farmers insisting that "We must have higher prices," business men asserting "Profit margins are too low," and consumers lamenting "We are being robbed." Is it possible for any of these groups to increase by concerted action its share of the available income? The answer to that question depends upon the person consulted. Some say that the milling around of various groups in pursuit of more income is a peculiar form of insanity, and their efforts are as the wind trying to wear away the rock. They say the whole process of dividing income is determined by relentless economic laws, and most

of all by the "law of supply and demand," to which we have already devoted much attention. Others take quite a different view, contending that as the race goes to the strong so the lion's share of the income goes to those who have the power to make their claims effective. They say that, apart from the very obvious fact that more income cannot be divided than is available, the terms of the division depend chiefly upon the organized strength of the various groups trying to get it. They suggest that if all the people who labor for a living on the railroads and in the factories should quit as an organized body tomorrow, there would follow such a deadly economic paralysis that no economic law could prevent the workers from receiving higher wages as an inducement to go back to work.

Probably somewhere between these extreme positions is the elusive truth. Just as there is a limit to the total income available, so, under the terms prescribed by our present economic system, there are limits to the shares obtainable by various groups in the community. These limits, however, are flexible. Instances are numerous where workers, by banding themselves together in trade unions, have gained higher wages for the same amount of work under better conditions. And employers, on occasion, have increased their profits by coöperating with one another through trade associations and other organizations for concerted action. Moreover, in addition to the fact that shares of income, under the prevailing economic system, are relatively flexible, there is always the possibility of changing the system by an alteration here and there; and also, of course, the very remote possibility of completely remodeling the system. Consequently there is reason for various groups—wage workers, employers, farmers, consumers—to strive for larger shares of income. Their efforts along this line will occupy us in a group of chapters of which this is the first. In this chapter we shall discuss further the problem of computing the income of a community, and the general nature of the way income is divided. In chapters to follow we shall consider group aspirations for more income, and devices used by these groups to realize these aspirations. And finally, in a concluding series of chapters, we shall look over various proposals to ease the struggle of various groups for more income.

In our consideration of the nature of income we were driven to the rather disquieting conclusion that the only feasible method of measuring it was in terms of money. That method, as has been suggested, is rather unsatisfactory. The purchasing power of a dollar is far from constant. Command over the same volume of goods may yield varying benefits at different times and places. And finally, a man's satisfaction in life is determined in large measure by the character of his job, which is not considered in computing tables of dollar income. More ob-

stacles appear, once the actual work of measuring money income has begun. Are statistics available? Which are the best? Are the vegetables the farmer raises for his own use to be tagged with a price and added into the total "money income"? Other perplexing problems which vex the student of income are mentioned in the following article. The estimates given at the conclusion of this selection are expressed in 1913 dollars as well as in current dollars in an effort to make allowance for general price movements.

ESTIMATES OF NATIONAL INCOME ²

SOME of the estimates of national income for the United States and other countries are only conscientious guesses, while others are the result of the ingenious utilization of such statistical material as is available, pieced together, and filled in by intelligent guesswork and good judgment. This is unavoidable, because only one country, Australia, has ever attacked the problem directly by taking an actual census of individual income. In other countries it has been necessary to utilize as best one could data regarding income taxation, wages, and production. In England and Germany reliance has been placed chiefly upon income tax data because the low exemptions under their tax systems make available more comprehensive knowledge of incomes, while in the United States, through our census activities, we have had fairly comprehensive and frequent information regarding production.

The differences in the quality of the material upon which the various estimates are based, however, are not more important than the differences in the conceptions of national income involved in the estimates and in the methods used in making them. Even if the material used were all that could be desired, it would be impossible to apply or compare any of the various estimates without knowing the conception of income upon which they are based and the method by which this conception has been applied; and these matters are frequently unspecified.

The term "income" is obviously vague enough even when applied to individual affairs. How much more uncertain and subject to individual interpretation must be the concept of national income!

This concept of national income raises many questions. Does it include the value of intangible satisfactions received during the year by reason of increased leisure, better weather, peace or the like? Does it include the value of the enjoyments or benefits which flow to individuals during the year from the use of personal possessions, such as clothing, furniture, automobiles and books, or of public works, acquired and paid for previously? Does it include the value of the unpaid services of wives or relatives, or the value of the services which individuals perform for themselves, since all of these yield satisfactions? Is it proper to

² Adapted from the *Conference Board Bulletin*, May, 1927, copyright by the National Industrial Conference Board.

count in the national income the interest received by government bondholders on war loans, the proceeds of which have vanished in smoke, or that paid to merchants and banks for purchases, on the installment plan, of consumers' goods which are used up, since these payments are represented by no current services? Is the income received by individuals from pensions, or as inmates of public poorhouses, asylums and prisons, part of the national income? Is the income accrued to corporations, clubs, or other groups and not paid to individuals during the year to be counted as part of the national income? Again, in reckoning the value of the goods and services accruing to the nation each year, should not account be taken of the depletion of the land and other irreplaceable natural resources out of which they are produced? A still more difficult question arises when it is asked whether an increase during a year in the value of property, such as real estate or securities, which gain may be realized in transfer, represents an addition to the national income, even as it does to the individual income?

Most difficult of all—and most important in these days—is the question of how taxes are to be counted in the national income. In the aggregate, of course, they measure the value of the services rendered by government, but when the distribution of the national income is being considered it is clear that taxes appear in part as income of some, like paupers, criminals, pensioners, etc., who render no current service, and again, as expenses of industries and individuals who receive no corresponding service. We may count the former as a national loss, but to try to balance taxes paid with services received in the case of individuals or industries is to offer to solve the enigma of the incidence of taxation.

It is impossible in the space here available to discuss the pros and cons of these and similar perplexing questions which confront the statistician and economist in making estimates of national income, and of which the layman is blithely oblivious.

Estimates of the national income may represent either (1) the aggregate of individual and group incomes measured in monetary terms during a given year, or (2) the total value of the goods and services created within the country during the year by the agents of production. The first type of estimate is made usually by the use of income tax data, information on wages, salaries, dividends, profits, and data regarding the number of persons employed in various occupations, together with estimates of average earnings. In this way the sum total of wages, salaries, profits, interest and dividends accruing to individuals and corporations or other groups during the year is arrived at. The second type of estimate is made by ascertaining the net value of the goods and services created by each industry or occupation, by deducting from the gross value of the goods and services produced all payments made to other industries or occupations for goods and services received. The remainder then represents for each industry the fund out of which the wages and salaries of employees, the rent of land and the interest, dividends and profits of investors are paid. The sum of these is the national income.

DIVISION OF INCOME

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In the calculation of estimates here presented for the years 1909-1918 both these methods were used. Each yielded approximately the same result and the final figure was in each case an average of the two results. Estimates for the years since 1918 are based on the view that goods and services created, rather than incomes received, are the sounder measure of national income, and that their amount may be most safely gauged by the net value of goods and services produced in the major occupational fields, with due allowance for unproductive taxation and the net receipts or outgo of goods and services from or to foreign countries; for it is out of this product that the real individual incomes must flow.

THE NATIONAL INCOME OF THE UNITED STATES ¹

Year ^b	Total Income		Per Capita of Population	
	Current Dollars (Millions)	1913 ^c Dollars (Millions)	Current Dollars	1913 ^c Dollars
1909.....	\$28,800	\$29,969	\$318	\$330
1910.....	31,400	32,174	340	349
1911.....	31,200	31,523	333	336
1912.....	33,000	33,216	347	349
1913.....	34,400	34,400	356	356
1914.....	33,200	32,885	339	336
1915.....	36,000	35,229	362	355
1916.....	45,400	41,115	451	408
1917.....	53,900	41,453	528	406
1918.....	61,000	38,670	589	373
1919.....	68,260	38,162	650	363
1920.....	74,853	36,641	603	344
1921.....	55,597	32,081	513	296
1922.....	61,633	37,976	561	346
1923.....	71,558	43,716	641	391
1924 ^d	70,768	43,157	622	370
1925 ^d	77,313	45,694	670	396
1926 ^d	78,649	46,392	671	396

^a Including business savings.

^b Estimates for 1909-1918 by National Bureau of Economic Research; for 1919-1926, by National Industrial Conference Board.

^c Deflated on basis of National Bureau of Economic Research index of prices of goods purchased by consumers.

^d Preliminary estimates.

The estimates of money income found in the first column of the preceding table give very little idea of the prosperity of the people in the United States. In the first place, what does a total dollar income of 75 billion mean in terms of goods and services? Were there more things to be divided in 1920 than in 1913 when the money income was only 34 billion? Very few, as seen in the second column which makes allowance for price changes. Again, how irksome has been the task of creating these products? Perhaps machines have made more chairs and tables available and at the same time deprived cabinet makers of the joy of making them. Who can tell?

The benefits enjoyed by any individuals or groups in the community depend as much on the number of people sharing the total as on the total itself. Further investigation reveals that, due to population increase in the 1913-1920 period, the 1920 per capita income in terms of 1913 dollars was actually less than that in 1913. Instead of comparing 75 with 34 and pointing to a doubling of income in this period, we must compare 344 with 356 and admit a slight decline of income. Per capita figures in terms of a constant dollar present quite a different picture from crude totals in terms of a dollar changing in purchasing power.

The figures of columns 3 and 4 clearly furnish a much better basis for judging the prosperity of the people of a community from year to year than do those of columns 1 and 2. Nevertheless, the "per capita" figures are likely to be very misleading. Did every man, woman and child receive \$671 in 1926? No; most youngsters, at least under five, thought they were lucky to get board and room and a nickel now and then. Would such a per capita figure give any hint of the fact that certain people filed tax returns showing income of over five million dollars while others received less than a thousand? No; a per capita figure of income is an average which reflects only the relation of the total dollar income to the total population, and sheds no rays of light on the actual division of income among these people or on the struggle for larger shares. That division is our next problem.

Various individuals and groups share the income—unequally. Those who are satisfied with the present division insist that it is a result of competition and the beneficent operation of the law of supply and demand. Each industrial worker receives a just wage for his labor and each farmer obtains a fair price for his products, at least "on the average" or "in the long run." Moreover, they add, since these market forces of supply and demand will settle matters anyway, no good can come of "interference" by trade unions or government boards.

This notion that individuals should accept what they get and be thankful, sure that it is all they deserve, is not approved in all quarters.

Wheat growers are certain that they have been maltreated since the war. Clothing workers, miners and others have formed unions in efforts to protect their interests. Claiming that they are underpaid, these men suggest that prices of goods and wages are fixed by bargaining, without regard to justice. They laugh at the contention of employers that competition regulates wages and prices in such a way that each man gets his fair share.

Proclaiming the justice of their claims, various dissatisfied individuals and groups act to enforce their demands. They may bargain singly or in groups. They may plan self-help or government aid. They may pin their faith on a new tariff law or a revision of the anti-trust laws. In any event, there are all sorts of individuals and groups active in the struggle for more income. Even those who applaud competition and denounce "interference" are found taking part in efforts to realize greater incomes.

A more detailed study of this struggle involves, first of all, a classification of incomes or a grouping of income receivers, for obviously it is impossible to report on each particular situation separately. The question then arises, "What is the best method of grouping incomes or income receivers?" The answer seems to be that it depends on the purpose in mind. A student of race problems might wish to compare incomes of white workers with those of negroes. His classification would be of little aid to a student comparing the incomes received by people of different ages. If someone wished to show the inequalities existing among various individuals he could list the incomes of the highest ten and the lowest ten individuals and draw his conclusion. Or he might point to the fact that in 1918 the top ten per cent of income receivers got 35 per cent of the income, whereas the other 90 per cent received only 65 per cent of the income. To show the inequalities in the incomes received by various groups, some material of this type was presented in Chapter VII. Here, however, our aim is different. It is to view the struggle for larger shares of income as clearly as possible. It is evident that people do not line up in the struggle according to the amounts of their incomes, for if they did, most farmers and laborers would be found organizing together for mutual improvement of their condition. Such is rarely the case.

Another common method of procedure is to undertake to classify the total income under consideration according to the character of the contributions to the productive process. The share of those who work under the direction of the management is called "wages." The managers, generally thought of as owners also by those who classify income in this fashion, receive profits as a reward for their direction of the enterprise and for the risking of their property in the venture. Those

who lend money to the enterprise are thought of as really lending capital goods—machines, factories, *et cetera*—used in the production process. Their reward is designated “interest.” Land is classified separately, the return received by the landowner being called “rent.”

This is the most commonly accepted method of classifying the division of income for the purposes of economic analysis. Nevertheless, the difficulties with this particular classification are many, especially in these days of corporate financing. As a general rule, the active manager is now hired on a salary basis. Recognizing this fact, some writers call the manager’s return “wages” rather than “profits.” But if the manager receives a “wage” then to whom does the “profit” go and for what contribution? Can it be said to go to the stockholders for their services in “managing” the corporation? Preferred stockholders usually have no vote, and the common stockholders are often in a similar position in these days of holding companies and investment banking control. Then can the rank and file of owners be said to receive “profit” in return for “risk”? Here again problems arise. Certain high-grade stocks involve less risk than low-grade bonds (return on which is called “interest”), and preferred stocks usually carry a fixed return which does not vary according to the profits of the corporation. The specific character of the contribution made by the “owners” is often difficult to distinguish from that of “lenders.”

Those who classify the factors of production as labor, business direction and ownership, capital and land, generally mean by “capital” concrete physical goods such as linotypes, drills, ovens, brick buildings and the like. Money borrowed is thought of as being used to purchase such instruments of production. But actually loans are made in the form of money and are invested in everything from trip hammers to the “goodwill” purchased from advertising companies. The conception that lending money is just an indirect way of lending production hardly fits current business practice. Moreover, borrowed money may be used to purchase land as well as for anything else, so that much could be said for regarding land as “capital.”

A further general criticism of this fourfold classification—or of a threefold one in which land is included in “capital”—is that no mention is made of income received through inheritance. Nor is there a place in such a scheme for campaign contributions by oil magnates or gifts for free public education. Why should it be assumed that no one receives income unless he contributes to the productive process?

Finally, the chief conflicts over the division of income do not take place along the lines suggested by this classification. Those who receive interest, profit and land rents on urban property have much in common, and on most issues will be found fighting on the same side.

This fact of common interests among many property-owning groups may lead directly to a new twofold classification for dealing with the division of income, that of owners and workers. Is this classification subject to the criticisms leveled against the fourfold classification? As before, the "manager" is not easily disposed of. Obviously he "labors," but his interests are those of the employer and his social contacts are with the owners. Much the same thing is true of many lawyers, doctors, engineers and other professional men who, while deriving most of their income from labor, share the views of property-owning groups with which they are closely associated professionally. The twofold classification dodges the annoying question of whether the return on preferred stock is interest or profit by making it possible to treat such a return simply as the payment for the use of property. Such a classification also avoids the confusion involved in thinking of "capital" as only physical productive agents other than land. Property includes not only buildings, machines, trade marks, franchises, and other concessions, but also land. Moreover, there is no assumption that only those who contribute receive a share of the total income, for it is clear that while the holders of property may receive their incomes as a result of contributing to the productive process, they may on the other hand find it profitable to interfere with production, as when they shut down factories because continued production might depress prices. And the property on which their incomes are based may be the result of inheritance, lucky speculation, or stealing as well as the result of hard work and frugality.

This broad grouping of the community into owners and workers corresponds more closely to the opposing factions in the struggle for more income than does the fourfold classification previously discussed. It is not without its weaknesses, however. It places owners and managers in different classes, although at present their interests are closely identified. It involves the awkward necessity of classifying farmers as either owners or laborers. They are generally both, and in the income struggle they line up together as farmers rather than as owners or laborers.

The truth is that any classification is open to severe criticism for failing to cover all cases accurately. Can a better understanding of the problem of division of income be gained by inquiring along what lines people are organized for group action to get more of the "good things of life"?

Various organizations formed by business men to promote their common interests come to mind at once. In 1927 the United States Chamber of Commerce expressed a very definite opinion that federal taxes ought to be reduced \$400,000,000. A few years earlier t

National Association of Manufacturers took action to defeat the child labor amendment passed by Congress and submitted to the states for ratification. In these two situations national organizations of business men exerted all their power in behalf of interests common to business executives and owners generally. These are merely illustrative cases, and of course inside the various industries combined action is still more frequent. Trade associations are constantly gaining in power. Wage earners—at least some four million of them—have organized unions to fight for higher wages and shorter hours. Outside these groups are the farmers. Individualists though they are, farmers have formed “coöps” for marketing cotton, tobacco, and other products, and their national organizations such as the American Farm Bureau Federation and the Grange are evidence of common interests.

A classification of income receivers in three groups—farmers, owners and managers, and wage earners—seems as helpful as any in the effort to get at the center of the income struggle taking place today. Such grouping avoids many of the difficulties mentioned in discussing the fourfold classification in terms of wages, profits, interest, and rent, and of the twofold division of income from property and from labor. The question remains whether or not there are serious objections to this classification. Several qualifications are in order.

Such groupings should not be understood to mean that all owners and managers are united in one completely unified organization, representing a perfect community of interests and absolute unanimity of opinion about the program to be followed in promoting the group welfare. There is, of course, extensive competition within this group and within each of the other large groups mentioned. The general nature of this competition has been outlined in previous chapters. Independent grocers and wholesalers are much more alarmed by the inroads of the chain store than they would be by the prospect of having to increase their clerks' pay. Manufacturers try to buy raw material as well as labor cheaply. The keen bargaining of one enterprise may cut into the earnings of another enterprise. Dipping into history, we would find many a business man strongly in favor of regulating the railroads because of discriminations in favor of large concerns. Nevertheless, business men of various industries and occupations do have much in common and often act together. A speech against government interference with business will receive a hearty welcome wherever ten or more business executives are gathered together. These same men unite in demanding reduction of taxes, especially on personal and corporate incomes. They fight most so-called “labor legislation,” such as the minimum wage and child labor laws.

Making due allowances for the existence of important subgroups

and the general clashes of interest within the groups mentioned, this classification still seems useful as a framework for studying the struggle over income division. Perhaps there is less justification for viewing the farmers as a unit than the business men; yet the farmers have been organizing rapidly during recent years and have made agricultural relief a major issue in national politics. "Labor" is admittedly a blanket term covering skilled and unskilled, colored and white. Still it is clear that this group can generally be distinguished from that of business executives, although this is not true of those who "labor" at professions.

People, of course, organize along other lines than those already suggested. Farmers, wage earners and managers may all be members of the same church denomination. Each of the major political parties is supported by voters whose economic interests vary widely. Consumers' leagues deal with economic matters of importance to every group. "Getting your dollar's worth" is a well-nigh universal problem. Agitation for more protection for the consumer than is afforded by competition has brought this phase of the income struggle to the fore. This will be treated in a separate chapter after those dealing with farmers, wage earners, property owners and business managers, because it is a problem common to each of these contending groups in its efforts to gain larger shares of income. The final chapter in this series will describe the efforts of these various groups to obtain government aid in the struggle for more income. By collecting and spending taxes and by laying down rules for the economic game, the state plays a very real part in the division of income.

QUESTIONS

1. What different meanings does the word "income" have?
2. How good a measure of income does money afford? Why is it said to be the best?
3. What place would each of the following have in a discussion of "income": lovely sunsets, factory windows, fishing rods, lathes, tennis nets, tractors, subways, and lobbying activities in Washington?
4. Do you see any use in calculating such averages as "the general price level" and the "per capita income"? Are they good for anything?
5. Mention different aims which various investigators might have in classifying money incomes. Would any one grouping be adequate for all purposes?
6. What interests do the farmer and the wage earner have in common? Are they always found fighting side by side on political issues? Explain.

7. Do wage earners and their employers have any interests in common?
Over what issues do conflicts arise between them?
8. What faults can you find with the farmer, wage-earner, property-owner grouping of income receivers? For what purpose is that division used?
9. Where do professional men fit in the grouping of income receivers referred to in question 8? How many men fall into the professional group and how large a share of the national money income do they receive? Are they active in group efforts to increase their share?
10. How many different types of "farmers" are there? of wage earners? of property owners?

ASPIRATIONS FOR MORE INCOME: FARMERS

THIS chapter will consider the aspirations of farmers for a larger share of the national income, and some of the devices used in the attempt to fulfill such aspirations. It will include:

- (1) An historical explanation of the present economic plight of "the farmer."
- (2) A discussion of farm incomes.
- (3) An analysis of some of the major farm difficulties, with special reference to "surpluses."
- (4) A survey of some of the solutions offered for "the farm problem."
 - (a) Coöperative marketing and the development of business ability among farmers.
 - (b) The revival of European markets.
 - (c) Government aid in controlling surpluses.
 - (d) A "hands-off" policy permitting continual hard times to thin the ranks of the farmers.

IT IS frequently asserted that human wants are unlimited. Just how this conclusion is reached or, for that matter, how it can be maintained with an air of finality that anything is unlimited, is a little difficult to understand at the present stage in the development of human knowledge. Nevertheless, it can be confidently asserted that in the United States today human wants far outstrip the means available to satisfy them. Consequently there is an unceasing conflict for larger shares of the available income. In this chapter and the four following we shall consider certain phases of this conflict as it manifests itself in the efforts of various groups to obtain more income.

The struggle between different groups, of course, does not disclose anything like a complete cross-section of the conflicting interests which assert themselves in terms of effort to obtain larger shares of income. An individual may find his particular situation causes him to have the interests of several opposing groups, and hence to be confronted with the problem of determining which of his conflicting interests should be stressed in his efforts to obtain more income. The farmer, our first subject of inquiry, serves to illustrate this. He is, for example, a consumer and consequently is anxious to have the prices of the things he buys very low. At the same time he generally owns a little property

whose price would be enhanced by high prices for agricultural products, and so his interest as a consumer in low prices may clash with his interest as a property owner in high prices. Likewise, the farmer is often found in the rôle of wage worker, where his interest in high wages may be opposed by his interest in low prices for the things he consumes. To ferret out which of these and other conflicting interests should be stressed is a difficult and important phase of the problem the farmer faces in his efforts to obtain more income.

The conflicting interests of the farm group are not, however so balanced that when one interest suffers there is an equal and compensating gain for the others. This has been amply illustrated during recent years when the failure of many agricultural commodities to keep abreast of prices generally has resulted in widespread distress among the farm group. This situation is not entirely novel, as appears in the following account which traces some of the origins of the present farm problem.

THE HARDY FARM PROBLEM¹

by William E. Dodd

THE greatest problem of the United States today is the farmer. In a country founded by and for farmers, the farmer is the butt of every economic thrust and strain. Everybody gets his share of privilege except the man who made the country. How has this come to be?

There were, in the beginning, twenty-five years of unprecedented prosperity, the effect on American farmers of the French Revolution and the wars which followed. Everybody in Europe was engaged in the business of killing; everybody in young America was engaged in the business of furnishing war supplies. It meant riches unimagined.

But all good things come to an end. Napoleon fell in 1815 and a little later American farmers could hardly sell their output anywhere or at any price. But everybody was trying to sell things to the American farmers. The world had suddenly gone topsy-turvy. It was the first great economic ordeal the country had contended with since 1787. The remedy that was applied was to declare young America isolated from the world and put up a tariff wall. That wall kept European goods out, but left the farmers to sell in Europe at whatever price they could get. The farmers got the worst of it; the makers of farmers' hats and shoes in New England set higher prices and sold to the "home market." That was the first doubtful concession by the farmers.

Ten years later, with the deflation of the world still in process, with lands selling in America for the value of a year's rent, and with populations moving off to the wilderness to shoot bears and chase Indians, the

¹ From a series of articles circulated by the Scripps-Howard Newspaper Alliance, Washington, D. C., 1926.

industrial men demanded a still higher tariff wall. They threatened dire distress if their concession was not granted; they promised roads and canals to every hamlet if the farmers would yield. The farmers yielded and European competition was as good as destroyed, the farmers still selling their cotton and their pork in Europe, when they could find buyers; cotton falling every year and pigs hardly worth their freight, even on a canal. It was the second time the farmers slipped—for the rising home markets would pay no more for corn and flour than Europe paid; and they deducted the freight across the Atlantic!

From 1830 to 1860 the farmers and the industrialists, with their banker allies, waged a bitter warfare. The great slave-holders of the South were fighting for the farmers, provided only the farmers of the West would let their slave business alone. This struggle finally took the turn of civil war about slavery, and once more the farmer received boom prices for all his goods: wheat, three dollars a bushel; pigs and pork at 10 cents a pound. It was a glad reminder to old men of the good old days of Thomas Jefferson and the French wars. But the farmers were sending their boys to the slaughter, fighting to break the power of the slave-holders, the only politicians clever enough to hold their own with the industrialists!

When the end of the war came, the price of wheat fell every year till it reached the low level of sixty cents a bushel. Corn and pigs and cotton went the same way. But the tariff remained the same. The prices of industrial goods declined only slightly. The income tax fell of its own weight and the direct tax was repealed. The billions of the war debt subscribed in greenbacks were now paid in gold. The farmers cried aloud. But it remained a far cry. It was a long and a dreary way, that of 1868 to 1898—the level of industrial prices remaining high, the level of farm prices falling low, Europe held firmly off the American market while the newmade business men exploited it as no other market had ever been exploited. The farmer had indeed fallen, and his sons were crowding into the cities to lay sewers, to join labor unions, anything to escape the farm. This was bad enough, but there was to be one more fall.

The German Kaiser set the world in flames in 1914. For a time men did not find their bearings. Then came the bonanza prices of a hundred years ago and of the Civil War. Bloody war was once more helping the farmers. No wonder farmers did not wish to enter the war themselves. The longer it lasted the better for them.—Grim fact. But the Great War came to an end. There was the usual period of feverish speculation, of extreme anxiety and finally deflation; the industrialists, who had made money as few industrialists ever made money, demanded a new tariff wall. Their demand was granted. The price of industrial goods remained near the war-time level. The railroad companies demanded a national guarantee of their income, even dividends on watered stocks. They received a hearing; the Interstate Commerce Commission could not deny them their demand.

The great labor unions, slowly developing their powers in a vast city

republic, demanded likewise their privilege. The government had agreed that eight hours made a day's work. At the close of the war business wished to take this away. But Labor was able by strikes and threats of strikes to maintain itself. The workingmen were not deflated; they receive wages today not far from equal to the peak of war-time rates. In all the great industrial area that reaches from Boston to Chicago the high and artificial levels of 1918 were maintained, the banks coming finally into their own as the true aristocrats of American life. What of the farmer?

The third time in American history the maker of the United States, the farmer, was left to the tender mercies of the world at large while everybody else enjoyed governmental protection. No tariffs enabled him to fix his own prices; no farmer organizations "dumped" the farm output upon the rest of the world while it sold at the top of the market at home. The quick consequence was that wheat fell in price from two and a half dollars to seventy-five cents; pigs from fifteen cents a pound on the hoof to five cents; and cotton stood upon thousands of acres of land, ready baled, but without any market at all; the farmer was being deflated. Bankruptcy, failure, misery became the rule. He cried aloud for help. Was there any means of help?

The world in which the farmer had come to live was in 1920 an artificial world. Vast cities held aloft their bright lights to draw off the youth of the farms. At the same time the city drew to its motley bosom the millions of immigrants who came to the United States. All these fell in with the labor unions in their efforts to protect themselves and now formed a vast interest opposed to the farmer. Meanwhile, the farmers of the country had declined in number till in 1920 they made a meager forty-five per cent of the whole. The country set up by the farmers of 1776 and reorganized by the farmers of 1787 was no longer a farmer's country. Was there any chance in 1920 and after for the workers upon the fields to win for themselves what they had time and again granted to others, security against the competition of a world hard pressed from every angle?

. . .

Regardless of the accuracy of the preceding analysis of the reasons why "the greatest problem of the United States today is the farmer," agreement is general that many farmers in this country do not at present receive money incomes commensurate with those in other occupations calling for a more or less equivalent amount of skill, labor and investment.

In this connection, it should be noted that the amount of money received by farmers is not a final and conclusive test of the amount of income they receive. Farmers are frequently heard to assert "I wouldn't be cooped up in a bookkeeper's cage all day for all the money in the world." They find sources of very great satisfaction in their close contact with nature and their freedom from some of the restraints

of city dwellers. For many of them a sunrise across plowed fields is a source of joy and inspiration, while to some urbanites a sunrise is merely something artists paint. On the other hand, some farmers feel that cities afford educational and social opportunities from which they and their families are barred because of the nature of their work. Consequently they would make deductions from their satisfactions, and hence from their ultimate income, on account of the disadvantages of their isolation.

The money received by farmers also fails as a measure of their income because as a general rule they produce for home consumption many of the things such as butter, eggs, poultry, *et cetera*, which do not usually enter into the calculations of their money income. Consequently the money income received by farmers is a relatively rough measure of their well-being. It is, however, the gauge generally used for making comparisons of farmers' incomes with those of members of other economic groups.

In the two brief statements which follow there are rough indications of how the money incomes of farmers as a group have compared during recent years with the money incomes of those engaged in other types of economic activity. The first statement is concerned with the per capita share of the national money income received by those engaged in agriculture; the second makes a comparison of the prices of agricultural products with wages and prices of commodities generally.

HOW THE FARMER'S INCOME COMPARES WITH OTHERS ²

THERE is a persistent and increasing disparity between the per capita share of the national income of those engaged in agriculture and that of those engaged in other major occupations. For \$100 that went to each person engaged in all other branches of our productive life, each person engaged in agriculture received \$46 in 1900. It had gone down in 1910 to \$40 and in 1920 to \$39. We find that the percentage of the total national income which has gone to agriculture has steadily declined from 13.8 per cent in 1920 to about 7.5 per cent in the last fiscal year, 1925-26. Whereas the percentage of our total population in agriculture today is 26 per cent or 27 per cent of our total population, this portion receives about 7.5 per cent of the total national income.

The per capita income of the non-farm population for 1919 was \$723; in 1921, the year of the depression, \$701; whereas the per capita of the farmers' current income was \$362 in 1919 and in 1921 \$186—that is, between the peak and the depression of this tremendous upheaval in general economic conditions in the United States, the per capita income of people who did not live on farms decreased about 3 per cent, and

² Adapted from the report of the Committee on Agriculture of the U. S. House of Representatives, "Agricultural Surplus Control Bill," 69th Congress, 2nd session, 1927.

the per capita income of the farm population fell about 50 per cent, or about one-half. Of course, that disparity or effect of depression is shown very much more strikingly in some states than in others. In Minnesota we find that the per capita income of non-farm population decreased only 3.1 per cent, while that of the farm population decreased 65 per cent.

The available information in all these respects strongly suggests that, while the position of agriculture since 1920 reflects chiefly the disturbance and upheaval of the war and post-war period, unfavorable factors in the agricultural situation have been in operation since the beginning of the century and have been in some way related to the rapid expansion of industry, trade, finance, and government during the past twenty-five years. We often hear expressed the desire to get back to pre-war conditions; it is often said that if we could adjust prices to the relative positions which they occupied in the period from 1909 to 1914 everything would be all right; but, as a matter of fact, there is very little evidence that agriculture was in a sound condition in this country before the war.

This situation appears to have arisen out of fundamental conditions affecting agricultural income on the one hand and agricultural costs on the other. These conditions are partly inherent in the nature of the productive processes of agriculture and partly circumstantial or artificial, arising out of institutional arrangements affecting the interrelationships of agriculture, industry, trade, transportation, finance, and government.

THE PLIGHT OF THE FARMER ³

WE HEAR a great deal nowadays about pre-war conditions, pre-war measurements, pre-war stability, and the like. Consider the present plight of the farmer compared with his pre-war status.

In *Farm Economics*, issued by the New York State College of Agriculture, covering the month of December, 1926, it is shown that, taking the five-year period 1910-1914 as a basis of 100, prices of farm products and other prices compared as follows:

Farm prices, 93 per cent of pre-war.

All commodities, 150 per cent of pre-war.

Wages New York factory workers, 232 per cent of pre-war.

Seventy industrial stocks, 256 per cent of pre-war.

"In other words," says Dr. Clarence Poe in *The Progressive Farmer*, "here is the American farmer averaging 7 per cent less in dollars-and-cents on every dollar's worth of products he has to sell, while he must pay 50 per cent more for everything he has to buy; and while he has been suffering this disastrous deflation, he has seen wages of factory labor more than double and prices of industrial stocks (representing manu-

³ Adapted from an editorial in the Raleigh (N. C.) *News and Observer*, May 25, 1927.

facturing prosperity) increased to more than two and one-half times their pre-war levels. A cartoonist could well illustrate the situation by showing a capitalist presenting his stock for sale at the marketplace of our civilization and getting \$256 for every \$100 it was worth in 1910-14, a factory worker presenting his monthly time-sheet and getting \$232 for every \$100 he was paid in 1910-14, while the farmer drives up with the food and clothing for the world and is immediately forced to take only \$93 for each \$100 he received in 1910-14—and must in turn pay \$50 more on every \$100 worth of anything he buys!”

If it is true that, as a group, the farmers of the country are faring badly in the matter of money income, what is the explanation? A detailed and trustworthy diagnosis of the farmer's woes requires an analysis far beyond the scope of a brief chapter. Here it is possible to suggest only a few things such as surpluses, tariffs, and “trusts” which, in addition to the factors mentioned by Mr. Dodd in his historical analysis of the farmer's plight, may have a bearing on the situation.

In considering the so-called “farm problem” it is necessary to remember that “the farmer” is, after all, a fiction, just as “labor” and “capital” are somewhat misleading tags covering a rather complex reality. There are many kinds of farmers and many types of farming. Agricultural problems do not appear in just the same guise to a North Dakota wheat farmer who owns two thousand acres of land and elaborate harvesting apparatus, as they do to a South Carolina farmer who tills ten acres of cotton land on a tenant basis. The problems of the California fruit grower are not the same as those of an Iowa corn farmer.

While each type of farmer has his own particular difficulties, there are, nevertheless, several problems common to large sections of the agricultural population and different from those faced by members of other economic groups. One of these is the crop “surplus” problem, discussed in the following article by the present Secretary of Agriculture for the United States.

THE SURPLUS PROBLEM ⁴

by W. M. Jardine

THOSE who produce crops of which the market will take an increased amount only at a more than proportionately reduced price, have reason

⁴ Adapted from a statement issued by the U. S. Department of Agriculture, August 15, 1927.

to be apprehensive of a generally bountiful harvest. This is true to a greater or less extent of a number of our principal crops.

The result is that an abundant crop may sell for less in the aggregate than a smaller one. Under such circumstances, the farmer in effect not only receives no additional returns from his surplus, but is obliged to *pay for the privilege of giving it away*. Thus the abundance of a crop may bring benefits to dealers and consumers, and disadvantage to growers. This may seem paradoxical, but it is true in a highly commercialized agriculture, where farmers produce mainly for the market.

An illustration is found in the cotton crop of 1926. Trouble will occur again and again in cotton and other crops, until we devise an effective means of taking care of surpluses that are due to exceptionally favorable seasons, and until we make substantially greater progress in adjusting production to demand.

An increase in the domestic output of a given crop from one year to the next may not necessarily present a surplus problem. Production elsewhere may have fallen off in the meantime or demand may have increased, or both. But since these possible alterations in demand and supply elsewhere do not as a rule accommodate themselves to changes in our output, it is correct enough for our present purpose to say that a bountiful harvest of a given staple usually creates a surplus problem.

Variation in total production from year to year is due to changes in acreage or in yield per acre, or both. Of the total variations in our production of corn from year to year over a period of 21 years (1905 to 1925), 85 per cent was due to differences in yield per acre and 15 per cent to acreage harvested.

In the same period, the per cent of the total variation in production of certain other crops due to yield was: Cotton, 60; oats, 63; tame hay, 47; winter wheat, 17; spring wheat, 95. The difference between these percentages and 100 was of course due to acreage.

In the next two statements sections of the fruit- and tobacco-growing industries are used as illustrations of some of the difficulties which beset farmers when they raise "bumper" crops. The case of the 1927 peach crop provides an example of farmers being penalized for producing an extra fine crop—a situation frequently prevailing in other branches of agriculture. The record tobacco crop described in the second article yielded the farmer a price about equal to half the cost of raising it, according to the complaint of the growers. In the case of the tobacco crop, it was also suggested that a combination on the part of the big tobacco buyers may have had some connection with the low price. This raises a point which could be conclusively proved or disproved only by a detailed investigation.

THE PENALTY FOR RAISING TOO MANY PEACHES ⁵

Most folks east of the Sierras don't know it, but there has been a "peach war" in California. Last year's pack of peaches was the largest ever known; and about 2,000,000 cases of 24 cans each remain unsold. The canners offered only \$20 per ton for this year's crop. The growers proceeded to let their fruit rot on the ground rather than accept. After thousands of tons did rot, a compromise was reached, as follows:

If less than 8,500,000 cases of peaches are packed, the growers will get \$35 per ton. For every half million cases above that figure the price is cut \$2.50 per ton, until if the pack goes above 11,000,000 cases, the farmers will get only \$20 per ton. A ton of peaches makes about 44.5 cases; therefore,

If the California peach farmers raise 190,000 tons of peaches, which will make just a little less than 8,500,000 cases, they will be paid \$6,650,000. But if they raise 256,000 tons of peaches, which will make just a trifle more than 11,000,000 cases, they will only get \$5,120,000. In other words, they will be fined \$1,530,000 for producing that extra 65,000 tons of peaches!

If laborers cut down production to make their jobs last longer and get more money, there would be talk of yanking them into court for sabotage. But the Canners' League of California is offering a prize to the farmers to induce them to cut down their peach trees.

Overproduction? Don't tell that to your growing boy. For 11,000,000 cases means 264,000,000 cans, just a little more than two cans of peaches per year for the folks in the United States alone, and not a can for export. Most kids would be glad to eat their year's supply in a week.

A FARMERS' PROTEST AGAINST THE "TRUSTS" ⁶

DANBURY, October 10 (A. P.)—Asserting that tobacco growers of North Carolina's bright belt this year produced the finest crop in fifteen years and were forced to dispose of it at half of what it cost to grow it, upwards of four thousand tobacco growers from the hills and valleys assembled here today in concerted protest against the prevailing low prices.

Their protests were voiced in lengthy resolutions after the vast crowd had stood under the trees for two hours hearing leading tobaccoists condemn what they characterize as combines. Alleged practices of some of the larger tobacco manufacturers were cited as the main cause for the low prices.

Toward the close of the session the farmers unanimously endorsed a long set of resolutions in which they pledged themselves not to sell any tobacco on the Winston-Salem market until next week, to cut their

⁵ Adapted from an editorial in *Labor*, September 10, 1927.

⁶ Adapted from the Raleigh (N. C.) *News and Observer*, October 11, 1927.

tobacco acreage in half next year and, further, to hold an even greater meeting in Winston-Salem next Saturday.

To this meeting the leaders of the movement hope to bring tobacco manufacturers, calling upon the latter for explanation of the prevailing prices.

In case this brings unfavorable results, legal action under the provisions of the Sherman anti-trust law was suggested as means of action.

Further discussion of some of the causes of the farmer's troubles will be found in the following articles, which suggest remedies for the present economic maladies of agriculture in the United States. Attempts to answer the question "What can be done to remedy the situation?" have been made by various parties, these answers being generally built upon a particular view of the root difficulty under which the farmer labors.

Of various remedies proposed for the farmer's economic ills, we shall consider first the one based on the suggestion that he follow the example of modern business enterprises in handling his affairs. In this connection, coöperative marketing is advanced as one of the most important business devices available to the farmer in his efforts to increase his income. The writer of the following article, who has organized many coöperative marketing associations, describes the aims of coöperative marketing in contrast to those of individual marketing, and sums up some of the achievements of the coöperative marketing movement.

COÖPERATIVE MARKETING ⁷

by Aaron Sapiro

FARMERS are in a peculiar kind of industry. Farming is the only industry in this whole country that is characterized by individual production. Everything else that you can think of,—the manufacture of steel rails, the manufacture of chairs, the manufacture of clothes—is done in factories by means of group production. Wherever there is group production, group capital is needed. And wherever group production and group capital are found together, the result has been group marketing.

Marketing is not an individual problem, because no man in the world can market intelligently without knowing what the whole crop is, without knowing what the absorbing power of the markets might be at any given time, without knowing what are the channels through which the thing will move, without knowing how he can get finances to enable him to do

⁷ Adapted from an address before the First National Conference of the Farmers' Business Organizations, Washington, D. C., December 14, 1922.

orderly marketing during that interval. Marketing, in its very nature, is a group problem, and the fundamental blunder of the farmer has been that as an individual he has attempted to solve a group problem by individual action.

What has been the result of the farmer's efforts at individual marketing? A million men and women raise cotton, let us say. Each farmer brings his cotton to market after it has been ginned. He does not know its grade; he does not know its characteristics as to color, and so on. The farmer does not know how much cotton the market can take at that time without a collapse. He does not know whether the expected crop is ten million bales or fourteen million bales. He hears all kinds of news, and most of it is the news supplied by the street buyer who has an interest antagonistic to that of the farmer. The individual farmer has no money, so that he cannot even wait a few days to sell his cotton, because he owes money for the production of the cotton, and unless he gets some immediate money his creditors may foreclose on him and take that cotton away. So he is impelled to sell it immediately. Not by reason of supply and demand, but by reason of his bad credit situation, he is compelled to sell it immediately and blindly on a market that he knows nothing about. Each one of these farmers dumps his cotton on the market against every other farmer who is selling cotton; ten or twelve of them, each urging the street buyers to buy his cotton. Cotton is competing against cotton for the buyer, instead of buyer competing against buyer for the cotton. The result is that the farmers by individual selling break the prices of their own products.

The farmers must never blame boards of trade or exchanges or speculative buyers when their prices are low. The speculator simply stands on the side and does what you or I would do if we were in the same place: he picks up the cotton, he picks up the wheat, the tobacco, the cheese, butter, prunes, beans and eggs; he picks up all these products at the cheapest price he can, and sells them at the highest price he can. The farmers, by individual selling, make it possible for him to buy at the lowest price from the producer and sell at the highest organization price to the ultimate consumer.

The only man who is really to blame for that situation, and the only man who can really cure that situation, is the farmer. He can't do it by help from the government; he can't do it by prayer; he can't do it by indignation. He can only do it by seeing the problem and then organizing from an economic standpoint to solve that problem. We have found that wherever the right kind of coöperative marketing association has been developed, it has been possible to stop the dumping of farm crops and substitute a system of orderly merchandising. This means simply the control of the movement of farm crops so that they go into the markets of the world at such times and in such quantities that they are absorbed at prices that are fair under given commercial conditions.

The one aim of coöperative marketing by farmers is to merchandise crops instead of dumping crops. It is not to fix prices. It is not to

create any artificial basis for prices. It is to apply to the great farm industry the principles which have been approved by every important industry in the entire United States, and, in fact, all over the world.

The technique of coöperation has really been worked out. There has been enough experience with coöperatives that have failed so that we can understand the reasons for those failures. There has been enough experience with coöperatives that have succeeded so that we can put our finger on the reason for success. With every coöperative that has succeeded the aim is merchandising.

The technique can almost be put into a nutshell, and it's this: First, to distinguish perishable products from products that either are non-perishable or can be made non-perishable; and then to build up around each one of those types its own kind of association; but in all cases to organize to sell by the commodity and not by the locality. You must organize by the locality to receive, to pack and to store. But you must organize by the commodity in order to market. Every interest in the United States except farming is organized to sell by the commodity, and until the farmers learn that point of technique, their coöperation is in vain. That is why three thousand or so alleged coöperative elevators in the Middle West have done a real service in grading, receiving and storing, but have been unable to solve the marketing problem of the wheat growers. That is why the couple of thousand of cheese factories in Wisconsin have done a real service in the manufacture and grading of cheese, but have not yet solved the problem of marketing cheese.

In short, we have been learning that farm experience does not make a man an expert in selling, and that the farmers, in order really to get a chance in the markets of the world, must have the right kind of organization, with the right kind of aim, and they must also have experienced, able business men hired by the association to control all of their technical and commercial operations. These are the three big things in coöperative marketing.

. . .

Economic factors affecting the prices of such farm products as cotton and wheat are world-wide. In order to plan intelligently in regard to acreage, *et cetera*, the farmer must know about conditions abroad as well as at home. To do this he must become a "business man of the world," at least so the writer of the following article suggests.

THE FARMER—AN INTERNATIONAL BUSINESS MAN ⁸

by Edwin G. Nourse

THE American farmer has long been a significant and striking international figure. To be sure, he has been clad in the rough garments of

⁸ Adapted from *American Agriculture and the European Market*, copyright by the Institute of Economics, Washington, D. C., 1924.

the toiler rather than in the fine raiment of the diplomat. He has sat upon the iron seat of his sulky plow or self-binder rather than in the mahogany swivel chair of the international trader or banker. But notwithstanding his obscure position and his failure even to realize the far-reaching importance of his own performance, the American farmer has played as vital a part in the development of modern industrialism as have these other characters who stand more brilliantly in the spotlight of public attention. He has been no less important than they in the evolution of the international economic organization which modern industrialism implies, and has become deeply involved in the intimate life and work of the people of many nations.

Whether the German factory worker should eat black bread or white has depended in part on the hardihood of the American pioneer and on the skilful farm management of his son or grandson. The textile hand in Lancashire who wanted low-priced bacon with his breakfast was more concerned than he perhaps realized in the Iowa farmer's ability to utilize labor-saving machinery in his corn field or the number of pigs he could raise from the average litter. Whether the peasant of Italy or the coolie of Asia should be better or worse supplied with sturdy cotton fabrics was affected strongly by what the planter and the cropper did on the plantations of our South.

The world was not slow to discover how large a dependence it could place on our farmers for food supplies and clothing materials. Thereupon it went about piling up industrial cities and ordering the domestic habits of its people on the basis of that dependence. A wonderful new land was given to agriculture in America during the nineteenth century. Had it not been so swiftly opened up, had it not been so industriously and skillfully developed by our farmers, particularly in the latter half of the century, the rapid and dazzling rise of modern industrial civilization would not have been made possible. This has been the essence of European dependence on the American farm.

But this is only half the story. Dependence has been mutual. While the European city dweller has been dependent on our farmers, our farmers in turn have been in large measure dependent on this industrial world and these overseas markets and these international transportation and banking systems to provide an always ready market in which to exchange farm surplus for the goods which the farmers did not themselves produce. As we have pushed up the productivity of our agriculture, the volume of these nonagricultural goods for the farmer's use and enjoyment has also grown. Rural America has become accustomed to a standard of living seldom if ever vouchsafed to farming populations. Often, however, the manner in which this welfare depended on foreign markets and smoothly running exchanges has been overlooked by farmer folk. When wheat was sold at the local elevator or hogs to the local live-stock buyer or cotton at the local gin or general store, the seller has been much inclined to think no farther than this local sale or, at most, the primary market that lay just a little way beyond. He was

likely to complain against this local trader or perhaps berate the miller, the beef trust, or the cotton exchange when prices were unsatisfactory.

But the man who goes into the markets of the world must become a business man of the world. His standing or falling will be influenced by banking conditions in London, the state of employment in Essen, the movement of trade along the Mediterranean, and crop yields in lands with which he enters into competition. He cannot ride his industry as an irresponsible passenger, but must use a navigator's skill to make winds and currents bring him to a prosperous ending of his journey. The art of economic success lies in understanding and, to some extent, foreseeing the whole trend of business development and in so adapting one's efforts as to grasp the opportunities thus presented, while yet keeping shrewdly within the limitations thus imposed.

Noting the dependence of many American farmers upon world markets, certain writers suggest that a solution for the farm problem will be found through concentration on a program to revive foreign—chiefly European—markets for American farm products. This plan would probably involve some changes in our present governmental policies toward Europe, such as those relating to the tariff and war debts. Some of these considerations are touched upon in the following statement of the interest of the American farmers in the revival of foreign markets.

THE FARMER'S STAKE IN A PROSPEROUS EUROPE ⁹

by Benjamin M. Anderson, Jr.

THE difficulties of the American farmer grow out of the European situation. Agriculture has become an over-expanded industry, not primarily because it has itself expanded, but because the manufacturing activity of the world has contracted. Western Europe, which before the war was the world's great center of manufacturing activity and the world's great market for farm products and raw materials, has lost her pre-war primacy in this matter and has left the rest of the world out of balance.

There are two ways out. We can, on the one hand, take a fatalistic attitude, regarding the evils of Europe as hopeless, regarding our own withdrawal from European affairs as an irreversible policy, and content ourselves to wait for the slow and painful process of internal readjustment to restore the farm to a prosperous position. The slow process of internal readjustment involves primarily the abandonment of the less profitable farms, the reduction of agricultural production, and the shift-

⁹ Adapted from *Agricultural Credits and Coöperative Marketing*, the Chase Economic Bulletin, August 10, 1923.

ing of population to the cities. We may restore the balance by increasing our manufacturing activity and diminishing our agricultural production—diminishing also other extractive industries, as mining and the production of various raw materials. The high prices of manufactures and the low prices of farm products will bring this about inevitably if nature is left to take its course. As the process goes on the prices of manufactured goods will come down relatively and the prices of farm products will rise relatively. In time a working equilibrium will be restored, and the farmers who remain on the farms will be getting satisfactory returns. Meanwhile, however, we shall see many painful things. The prospect of an ultimate equilibrium brings little comfort to the farmer whose mortgage is foreclosed and whose children must be laborers in city factories instead of independent landowners in a prosperous farming country. The character of our social life will be changed, and changed adversely. We need the wholesome influence of large rural populations. But those who oppose American participation in the straightening out and rehabilitation of Europe must expect to see this process and must be prepared to accept it. I, for one, am not willing to let nature take its course in this way.

The other way out is to restore the equilibrium at a much earlier date by bringing Europe back to something like her old position as the world's great center of manufacturing activity and the world's great market for foods and raw materials. I believe that we can do this if our government will coöperate with the government of Great Britain in helping to straighten out the tangle of European affairs. I do not believe, however, that we can do this merely by pious advice to Europe. I think that it is necessary for us to take an active part in the adjustments over there and to make concessions of substantial kind. I believe that we should be willing to modify or even cancel the debts of our Continental allies to our Government, to readjust our foreign trade policy, to consider seriously whether we cannot assume some responsibility for guaranteeing security to France; and that the American investment markets should be prepared to take additional European securities—all these things being in consideration of the necessary reforms on the other side.

These reforms involve an early settlement of reparations problems on an economic basis, the readjustment of public finance in the former belligerent countries of Continental Europe, and the rectification of Europe's currency situation. They involve the elimination of artificial trade restrictions which have been so multiplied since the war. I am perfectly sure that this is the only course which will save us from years of agricultural distress.

One of the most controversial plans for "farm relief" is found in the proposal to set up an export corporation which, with the aid of the federal government, might dispose of the troublesome surpluses in such

a manner as to keep up the prices the farmer receives for his products. The general nature of this plan, which has been embodied in numerous proposals for federal legislation, is indicated by the following statement.

A FARMERS' EXPORT CORPORATION ¹⁰

by George N. Peek and Chester C. Davis

THERE has been practically no demand among the farmers of America for an export bounty. It is generally recognized that such a bounty would stimulate exports, and unless they were subject to regulation as to volume the flow out would exceed the quantity which the current relation between domestic supply and demand would normally free for export.

There is a strong demand, on the other hand, for an export corporation or some similar agency duly authorized by law, which would have the following powers:

(a) To buy for export, or to contract for the purchase and export, of any surplus above domestic needs whenever there is evidence that such a surplus exists, and is bearing down the domestic price to a point that erases, or considerably lessens, the effect of the protective tariff on the domestic price.

(b) If it becomes necessary to sell such surplus abroad at a lower price than the one prevailing when the purchase was made, such loss to the exporting agency should be repaired from an equalization fund, made up of an equalization fee or excise tax collected upon all the units of the special commodity dealt with as it moved in trade.

This might be accomplished by coöperative associations handling the export surplus, if the government would assist by levying a tax or equalization fee to compel all producers alike to contribute to such losses as may be experienced in handling the exports sales at world prices, in order to maintain a domestic price in this country that reflects the advantage of the protective tariff. If voluntary coöperative societies attempt to handle the export surplus in this manner by assessing their export losses against their own members, they would be conferring an undue advantage on non-members, a course which would speedily destroy the coöperative itself.

There would be no direct bounty. Profit to the producer would result from an increased domestic price level. The loss sustained on the relatively small portion which it might become necessary to buy at this protected level and sell at a lower world level, would be distributed over the

¹⁰ Adapted from correspondence with Sir Josiah C. Stamp, published January, 1926.

entire crop and would be small as compared with the gain in price on that part of the crop sold and consumed at home.

The plan for an export corporation has met with vigorous opposition, including that of President Coolidge who has twice vetoed an Act of Congress authorizing the federal government to finance the formation and participate in the activities of such a marketing organization. Vigorous criticism of such an arrangement for marketing farm products is contained in the following article, in which the author also advances some alternative ways to solve the farm problem.

SOME EVILS OF A FARMERS' EXPORT CORPORATION ¹¹

by William E. Dodd

THE farmers may unite in a vast federation of farmer groups, demand immunity for violating the federal anti-trust laws and wrest from Congress and the President a great selling corporation, with immense funds from the treasury and expert agents in Europe to manipulate the markets there, where farmers and workers are already poorer than in the United States, undersell European peasants and farmers and at the same time sell wheat and cotton and pork in the United States at prices which the farmers themselves would fix. By this method they would do what big business already does with the help of the government. What is right for the one is right for the other. It is not a question of right.

There is no doubt but the farmers may set up such an organization. But there are some sorrowful incidents to this policy: first, the only men who could hold the farmer groups together in a firm, responsible national body are the great landlords, the business men of the farm areas, the great planters who least need assistance. The majority of workers upon the soil, the small farmers already in debt, the tenants never out of debt, and the day or month workers—a mass of men already bordering on the condition of slavery—would receive no more of the benefits of the great system than the master farmers allowed them. They would be in the position of the industrial workers under the beneficent tariff, except perhaps the small proprietors. The effect, then, of the system would almost surely be to feudalize agriculture, a process already under way.

The next incident would surely be an increasing ill-feeling in Europe and other regions whose governments would soon duplicate the same process and close their markets to American farmers altogether. That would mean defeat; it might mean war—a war that might not aid the American farmer. In this day of close international relations, acknowl-

¹¹ From a series of articles circulated by the Scripps-Howard Newspaper Alliance, Washington, D. C., 1927.

edged or otherwise, any policy tending to increase irritations and hostilities could hardly in the end benefit anyone. But I must say the farmer plan would not be any worse in this respect than the plan, for example, of American steel or implement manufacturers.

The third and the most serious consequence of the great farmer corporation would be a raising of the prices of all the major items of daily consumption. Bread would cost fifteen cents a pound; meats would take one more leap upward; and clothing would cost fifty per cent more than it now costs. That would mean immediate strikes in all the greater industries; and these would raise the wages of workmen everywhere. The outcome would be a general lifting of the price level in the cities and the farmers would find that their scheme had failed, unless they could once more raise the prices of their output. Clearly that would not do.

Thus we see that what business may do, farmers may not do. Sauce for the goose is not sauce for the gander. Is there, then, no other way?

Another way of equalizing the life of the country would be a steady, scientific reduction of all tariff protections—the very thing I happen to know was President Wilson's remedy. But here again there would be heroics to be endured. When Mr. Wilson managed to tease Congress to reduce tariffs on the whole by about half, there was an outcry which must have overwhelmed him and his system, but for the timely declaration of war by the German Kaiser. A steady reduction of tariff protection would lower the cost of living, and lowering the cost of things to farmers would have the same effect as raising the price of their output. If half a score of statesmen were put upon the tariff board, and left alone, they might in a decade work a vast relief.

But when the prices of goods began to fall in the stores, the American manufacturers would lower wages. Then workmen would strike and city markets for farm products would weaken. The strikes and the lower prices for farm products would frighten farmers. They might not take their own medicine; it is a good doctor that will take his own medicine. But the process of deflating business is preferable to inflating farmer prices. Great business trusts would surely reduce some of their fat bonuses; railroad corporations would come to think a shrinkage of the stocks and bonds not the worst thing that could happen; immigrants would cease to crowd every ship bound from Europe to America. A healthier level, a lower cost of living, would be a benefit to the farmers of the country; it would in the end ease off the sharpening rivalries of international relations, open world markets to American business and open American markets to European business—leaving the farmer where he is, selling wherever the world needs his output.

That would be a remedy, a confession, however, of the failure of Republican statesmanship these seventy-odd years; and one wonders whether Spartan-trained Republicans would ever be willing to say that, no matter what history says. Man is a marvelous animal; he hugs untruth more tightly than he does his dollars.

There is another and a more promising route to a fair farmer prosperity. That other way is a strong organization of farmers, a federation of all the farmers, as already planned; the sub-members of the federation to control the output in their branches, as the milkmen now endeavor to do. The great national federation would support the local groups of producers in making proper prices for all that was to be sold, and when there was a hitch the government in Washington would support the farmers. Meanwhile, the tariff wall would be steadily lowered. In this way the cities could be supplied with cotton, with meats and with flour at rates a half or a third higher than they are now supplied, and at the same time the retail price would be held down. But in order to do this the farmers would deal directly with city governments and fix prices and conditions of the market. That would quickly abolish most of the middlemen, the brokers, the wholesalers, the jobbers.

And here again would come the pinch. The first broker that set his face toward the open spaces would make a wail. The Babbitt newspaper editors who always wish their city to be the "biggest ever" would take up his case. There would be a hue and cry all over the land. The great cities would cease for a time to grow; grass would grow again on some streets; and some towns would, perhaps, disappear, as towns have done in times past. It would be a painful process; but the least painful of any the farmers could resort to. It would also be the most scientific, the least doctrinaire, for in different places different methods would be adopted. A considerable migration from cities to the country would follow, and country youth would tend to remain at home. There would simply be a restoration. Life would move more slowly and all classes would secure a fairer portion of the general stock.

Is the United States, like Holland or Denmark, equal to any such far-reaching statesmanship? Are we not prone to go by way of least resistance, allow the strong to take what he can and leave the weak to take what is left? The past speaks this lesson. The present leadership avows this faith. The farmer has in times past lent his approval to the process. He is now the victim of his own concessions, and one may fairly doubt whether there is any other lot for him than that of peasantry. The hope of averting this doom of history is the reason of the fierce outcry from the western hill, the murmurs and complaints from the cotton fields. The humane and the just everywhere wish the farmer well, but one wonders whether it is now too late to save him.

Not all of the criticism of the export-corporation plan is as carefully worked out as that expressed in the preceding article. Much of it is based on a blanket prejudice against "government price fixing." The underlying idea seems to be that any interference with the "natural" working out of supply and demand relationships is vicious.

This attitude raises the question as to whether or not the solution

of the farm problem lies in the "law of supply and demand." Many people believe that no particular thought need be exerted to ease the farmer's situation. Their contention is that matters will take care of themselves quite satisfactorily. Not only will cotton or corn prices be adjusted automatically to all other prices, but the returns from agriculture as a whole will strike a balance with returns from other industries. If too much cotton is produced this year, the low prices received will be a solemn warning to the cotton growers not to let it happen again. And if, in spite of continual warnings of this kind, they still continue to produce more than can be sold at profitable prices, the slow gnawings of economic deprivation will gradually thin the ranks of the farmers and prevent "overproduction." In the long run there will be no more farmers and no larger crops than are just necessary to command good prices in the market, since in the course of time the excess farmers will become absorbed in other occupations.

Critics of this point of view raise at least two objections; one is that a disastrous year for the growers of any major crop is a community disaster rather than an abstract lesson in economics. The other, based on recent agricultural history, is that the period of readjustment sufficient to drive surplus farmers off the land might be a generation. That would be a generation of economic distress for large elements of the population, and at its conclusion the increased food requirements of a larger population might call for another period of readjustment "back to the farm."

In the following group of selections there is a statement that the agricultural problem should be left to the mercies of supply and demand, followed by two objections to that procedure, one from a short- and one from a long-range point of view.

LET SUPPLY AND DEMAND DO IT¹²

PRICES and production are inseparably related. Prices are the natural agency by which production is directed; if they are unduly high or low for certain commodities, productive effort is shifted accordingly and thus fairly adjusted relations among commodities and industries are maintained. These relations are often disturbed by changing conditions, but the natural price system is always tending to restore the natural equilibrium. Efforts at arbitrary price regulation interfere with the natural process, and wherever the influence upon production is disregarded, they not only fail of their purpose but work mischief.

Thus one of the chief complaints of the middle west is on account of the low price of corn. The reason for the low price of corn lies in an unbalanced relationship between the production of corn and hogs. Hogs

¹² Adapted from the National City Bank Letter, February, 1927.

are bringing a good price and the farmers who have produced both corn and hogs are not in distress. As the situation stands, a strong inducement exists for increasing the production of hogs, which is in every way desirable. It is no part of the business of the government to interfere in the private relations of the people. Let alone, the production and price of corn will be naturally adjusted to the demand, and the wants of the public will be best served. It is economically unsound to offer an inducement for continued production of anything in excess of the want of it.

"GOD HELPS HIM WHO HELPS HIMSELF" ¹³

by Harris, Irby, and Vose (cotton brokers)

It is all very well to talk about the unwisdom of interfering with the law of supply and demand, but it would be just as logical to maintain that hospitals and doctors should be abolished and that we should make no attempt to cure those who were stricken with disease, or to save would-be suicides from destroying themselves.

Humane economists now admit that there are situations in which the law of supply and demand may be suspended with benefit to all concerned, and the present predicament of the South seems to be a case in point.

As a result of the government crop report issued recently, the cotton producers of the South face a grave situation. The crop estimating board puts the presently indicated yield at 15,810,000 bales. This seems utterly inconsistent with the ginning up to September 16 which was only 2,511,000 bales. But the report has had a profound effect on public opinion nevertheless, and most of those who would normally be buyers at present are holding off.

There is no use berating the government. If it has over-estimated the crop it will have injured the South irretrievably. But its underestimate last year makes it easy to persuade people that the crop estimating board may have erred in the same way this season, and if this should prove to be the case the word "demoralization" is not too strong to apply to the situation that may develop.

In the circumstances we feel that the best service we can render the South is to advise that cotton should not be pressed for sale at less than the cost of production. We are, in fact, disposed to go even further and suggest that the cotton producers throughout the South should make a common cause of the problem by which they are all confronted and unite for its solution by agreeing to market their cotton with deliberation and in accordance with an orderly and well considered program.

Last year the sugar producers of Cuba faced a similar situation. The supply of sugar was substantially in excess of the demand and it was selling at less than it cost to produce it. The Cuban Legislature wisely

¹³ Adapted from "Conspectus of the Cotton Market," issued by Harris, Irby and Vose, September 25, 1926.

authorized President Machado to limit the production of sugar, and under the authority vested in him he issued a decree which restricted the output of each sugar mill to a certain percentage of its normal maximum. He has followed up this decree by announcing that cane cutting for the next crop shall not commence before January 1st. The result has been a sharp advance in sugar, which now seems on the way to a price that will give the grower a fair profit without oppressing the consumer.

We commend the example thus set to the consideration of the cotton growers of the United States. It is unlikely that a crop of 16,000,000 bales can be sold for more than an average of 12½ cents per pound, or \$1,000,000,000, whereas a yield of 12,000,000 bales would probably bring 23 cents per pound, or \$1,380,000,000. Why should the South go to the expense of gathering 16,000,000 bales when it can get \$380,000,000 more for a crop of 12,000,000 bales?

We ask our Southern friends seriously to consider this question, and urge that they should immediately organize to give effect to the conclusions reached. "God helps him who helps himself," and we doubt anything more than a temporary recovery in prices until there is some unity of action in resisting the influences of depression now at work.

WEARING DOWN THE FARM POPULATION ¹⁴

by George N. Peek and Chester C. Davis

FARMERS cannot go in and out of business as readily as labor can shift occupations. Nor can shifts be made easily from one line of farm production to another as price relations change. The wheat grower cannot grow wheat one year and become a dairy farmer the next, and repeat these shifts as prices change again in relation to each other. If his land and equipment are adapted to one sort of production, experience shows that he makes adjustments slowly, and as a rule the changes are toward greater efficiency in his line rather than radically away from it.

We know that post-war prices for farm crops have been so seriously out of line that the farm population has been forced from the country to the cities at an alarming rate. It is true that this process, if continued, would in time tend to restore the prices of farm crops on account of the curtailment of farm production. But the United States it witnessing the steady gain of population on production, and the wisdom of such a policy of wearing down the farm population, then facing the necessity of building it up again, might well be questioned.

¹⁴ Adapted from correspondence with Sir Josiah C. Stamp, published January, 1925.

QUESTIONS

1. "While wars in Europe and on this continent have always meant temporary prosperity for the farmers, they have resulted in disaster to him in the long run." Is this true? Justify your answer.
2. Mr. Dodd says that millions of immigrants "fell in with the labor unions in their efforts to protect themselves, and formed a vast interest opposed to the farmers." Do you agree that the interests of the farmers and the labor unions are opposed?
3. Do you think farmers would gain or lose more by a reduction of the existing tariffs on manufactured goods? Does your answer depend to some extent on whether or not the reduction would be sharp or gradual? Explain.
4. Look up figures of agricultural exports during the past fifteen years to test the validity of the statement that "the difficulties of the American farmer grow out of the European situation."
5. It has been said that farmer coöperative marketing cannot ever be generally successful until the farmers in the "coöps" reconcile themselves to the fact that some farmers can stay outside and realize virtually all of the benefits of membership. Explain the basis for such a statement and indicate whether or not you think it is true.
6. What are the advantages gained by organizing a coöperative marketing association "by the commodity and not by the locality"? Are there disadvantages?
7. What, as you see it, are the outstanding obstacles to a generally successful program of coöperative marketing for the farmers of this country?
8. "The difficulties in the way of successfully controlling surpluses of farm products are practical rather than theoretical." Explain and illustrate.
9. "If the farmers haven't enough sense to look out for themselves, it would be better to let them suffer than it would be to set up an artificial system of price control for agricultural products." Discuss.
10. Harris, Irby and Vose, cotton brokers, assert that "there are situations in which the law of supply and demand may be suspended with benefit to all concerned." Do you agree (1) that this is possible, and (2) that it might, on occasion, be advisable? If you think it is possible, do you think the law of supply and demand should be called a "law"? And if it can be suspended, do you think that this should be done for the benefit of certain classes of farmers? Explain fully.

ASPIRATIONS FOR MORE INCOME: WAGE WORKERS

THIS chapter will consider the aspirations of wage workers for more of the good things of life, and some of the measures taken in the attempt to realize them. There will be discussions of:

- (1) The position of the worker in modern industrial society.
- (2) Wages and wage theories.
- (3) The purposes of trade unionism.
- (4) The growth of trade unionism in the United States.
- (5) The nature of trade union organization.
- (6) Some trade union policies and practices.
 - (a) Collective bargaining.
 - (b) Standardization.
 - (c) Trade agreements.
 - (d) Strikes.
- (7) Government action to reduce the insecurity of the wage worker.
 - (a) Compensation insurance.
 - (b) Unemployment insurance.
- (8) Increasing employer interest in prosperous wage workers.
 - (a) The high-wage philosophy.
 - (b) A business view of leisure.

AMONG the claims for a larger share of income, one of those which is steadily insistent is that of organized wage workers. This has not always been so. Although the rapid spread of industrialism in this country and abroad was accompanied by the growth of a distinct wage-earning class, it was not characterized in its earlier stages by extensive organization of wage workers to press for larger shares of income. Various reasons for this have been assigned. One is that the industrial workers, observing that machines made possible increased production, took it as a matter of course that mechanized industry would mean for them, as for their employers, a larger measure of prosperity, without any aggressive steps on their part. They did not recognize in the conditions imposed by the factory system and capitalistic enterprise any occasion for organization. In areas in the United States where a rapid process of industrialization is still taking place, as in many parts of the South, the newly recruited wage workers are quite frequently indifferent to organization. In those sections of the country where machine industry has been longer established, however, many wage workers have banded themselves

together for the purpose of seeking more income. They have formed various sorts of organizations to protect and advance their interests, and these organizations are at present formidable enough to make the country conscious of the "claims of labor."

This chapter deals with the aspirations of wage workers for larger incomes, and some of the methods used to aid workers in getting what they want. It includes discussion of trade unions, their aims, policies, and growth; some government activities designed to promote the interests of wage workers; and the policy advocated by some employers of aiding workers in their efforts to obtain more income in order to promote general prosperity. In considering the efforts of wage workers to get more income, only casual attention will be devoted to unorganized workers, who are much more numerous than those who are organized. The reason is that such coherence as there is in the efforts of wage workers to obtain more income is generally provided by the organized groups.

This chapter presents not only dispassionate analysis of the economic position of industrial wage workers, but also partisan statements by people anxious to advance the interests of those who labor for a living. Such a plan of exposition, as is the case in many other sections of this volume, imposes upon the student the obligation to discriminate.

The first article in the chapter suggests some of the reasons why wage earners are not entirely content with their lot, in spite of the assurances of many observers that "Labor today, especially in America, undeniably enjoys better compensation and working conditions of every kind than ever before."

HAZARDS OF THE WAGE WORKER ¹

by L. S. Lyon and C. N. Hitchcock

Ours is a society of specialists, each of us working in his own narrow field, and through the use of money exchanging his products for those of other specialists. It is a very interdependent society. Nothing significant can happen in even a remote corner of the earth without its consequences being felt the entire world over. It is a technological society. Science has enabled us to harness giant forces and to compel them to do our bidding. It is a greatly concentrated society. Industry is on a large scale; the ownership of wealth and income is concentrated; population is massed. It is a society whose operations are guided and controlled in part by the wishes of its individual members and in part by those powerful agencies of social control, law, custom, habit, and public opinion.

¹ Reprinted from *Community and National Life*, edited by C. H. Judd and L. C. Marshall, Government Printing Office, 1918.

What do all these facts mean for the worker? We may be sure that his position in this society, while partly determined by his own efforts, is largely the result of the situation in which he finds himself. Whether for better or worse, his position is that of a wage earner. He sells his product, labor, to others who control the nature of his activities.

We must remember that this has not always been true. Indeed, the wage system is really quite recent, as human history goes. We may pass by without comment the period of slavery. It had some good features for the worker. He could not be "discharged" under that system, and his "employer" could not well afford to let him be underfed, underclothed, or cared for in a way which might result in illness or death. A discussion of serfdom may also be omitted.

Even after serfdom had passed away in our mother country, England, there was not a wage system in the sense that practically all workers received wages for working for others, although of course there were many cases of people working for hire. The worker was likely to own the tools with which he worked, to own the product which he had made, and to fix for himself the circumstances and conditions of his labor. And this was true not merely of a few people. The whole organization of industrial society of that day was drawn on the hypothesis that the worker would pass through the period of apprenticeship and become an independent worker, master of his own fate.

The discovery of America and other new lands, the improvement of ships, the invention of the compass, and other inventions which widened the market, made it impossible for the ordinary craftsman to know enough about market conditions to sell his goods to the best advantage. Specialists arose to perform this work. The final outcome was gradually to put the average worker into a more "dependent" position. This process was greatly accelerated by the coming of the factory system with its expensive machinery; its necessity of grouping large numbers of workers in a single space in order to use power to good advantage; its requirement of specialized knowledge for both production and selling. The artisan had no choice but to work for those who could buy the new machinery and who could build the huge factories required to house it.

This change has in many ways been to the advantage of the worker and of society as a whole. The amount of goods produced under the new system is tremendously greater than the amount produced in the old craftsman age. Necessities, comforts, and conveniences have been made available as they had never been available in the past. The worker has shared in these direct benefits; and there have been indirect benefits in the form of improved public facilities, expansion of educational opportunities, and better conditions of living generally.

There can be no question, however, that there are many elements of uncertainty and insecurity in the position of the modern wage worker. Being dependent upon the employer for hire, the worker can fare well only when he is employed. His own wishes play relatively little part in determining whether employment will be available for him. In the main,

security of employment is assured only when the position of the employer is secure, only when industry is moving on an even keel.

The huge machines in modern factories are so complicated that the worker cannot comprehend and understand them as he did the tools of earlier days. This fact makes him far less able to protect himself from accidents. Furthermore, modern industry is very interdependent on the side of production. A fellow workman starts an engine in a far-off building, and a machinist's hand is crushed in the machine he was cleaning. A fellow miner is careless with dynamite and a hundred men are killed. An inspector in a steel mill is ignorant, passes a defective steel beam, and a score of workers using this beam in bridge construction are precipitated into a swollen stream.

To the dangers of accident in the worker's position must be added the dangers of occupational disease. Lead poisoning, floating dust particles, sudden changes in temperature, *et cetera*, play their part in rendering the worker's position insecure.

All these dangers and risks are aggravated by the fatigue that comes from monotonous specialized labor amid the rhythm and roar of gigantic machinery, and by the long hours of labor that prevail in many kinds of work.

Inadequate wage and inadequate opportunity are unfortunately too frequent. The facts concerning this situation admit of no dispute. An investigation conducted a few years ago showed that in the industrial states of the nation "probably as large as 20 per cent of the population are ordinarily below the poverty line." In this computation a purely physical standard, a sanitary dwelling and sufficient food and clothing to keep the body in working order, defines the poverty line, with no monetary allowance for intellectual, esthetic, moral or social requirements.

The reasons for this situation are not hard to find. They all center about the fact that the worker is in a weak position in the bargaining relation.

To begin with, the powers and capacities of the worker are frequently much more influenced by the amount of food, clothing, shelter, and education which his parents have been able to provide than they are by any action on his own part. His parents may not have been able to give him an even start in life. Suppose, however, that they have done so. His bargaining position is still weak. The only commodity which he has to sell is labor, and he must be in person with this commodity when it is sold. This limits his "market opportunities" very seriously. An attractive job offered in another town or in another State may be quite out of the question for him. He may not be able to leave his home, his family, and his old associates. He may not be able to afford the trip involved.

Then, too, labor is a very perishable commodity. The part which is not sold today can never be sold. It disappears, and the worker receives no income from it. This would not in itself be so significant were it not for the fact that the seller of labor seldom has a large reserve of money.

He can seldom afford to lose any income. It is far more important for him to find a quick market for his labor than it is for the employer to buy his labor. This, of course, makes his disadvantage in bargaining with his employer a serious one.

His bargaining power has been further weakened by the fact that specialized machinery has been introduced into many industries so that no special skill is required to do the work. In days when the artisan alone knew the "tricks of his trade," he was in a position to bargain for good wages. Today, when "thought, skill, and intelligence have been transferred to the machine," hesitation on the part of one worker to accept a job is very likely to mean that it falls to another.

These difficulties are increased by the fact that the worker has typically what is known as a "short-time contract." Usually he works by the hour, the day, or the week. He may, accordingly, be dismissed at the very first moment at which it is profitable for his employer to dismiss him.

Taking all these features together, it is not surprising that many thoughtful people feel that the worker's "freedom of contract" does not leave him in a very advantageous position. Nominally, he is free to contract as he chooses, to accept or to refuse work under given conditions, to drive a good bargain. Actually, his ability to do these things in a way satisfactory to himself is not very great.

The preceding statement sketches some of the reasons why wage workers under modern industrial conditions do not have an altogether enviable position. The following description of a coal miner's job may throw further light on the same subject. Modern industrial jobs are of all kinds, some thrilling, some monotonous, some dangerous, some safer than milking cows or pitching hay. The following is presented not as a typical industrial job, but merely as a job which the coming of industrialism has brought along with it.

A MODERN INDUSTRIAL JOB ²

by J. W. F.

HE WAS a big, powerful man, the sort of man generally described as a "typical guardsman."

He had wandered much. He had seen men work at many occupations—tea planters in Ceylon and China, gold miners on the Rand, diamond miners at Kimberley, cowboys in the Wild West, lumberjacks in Canada. . . . He had seen men build ships and make cotton and woolen goods, and he had sailed in a tramp steamer. He had soldiered through the war

² From "In a British Coal Mine," appearing in the *Daily Herald* (London Labor daily), May 3, 1926. Reprinted in *The Living Age*, June 5, 1926.

and risen to the rank of colonel; but he confessed he had never seen an electrically driven coal-cutting machine working in a twenty-inch seam.

He was anxious to see one. Our manager granted permission, and he came to see. I met him at the pit-head. He was dressed for the occasion in a suit of mechanic's overalls. With eighteen others we got into the cage. As the descent began he gasped for breath and clutched my arm.

The cage stopped, and we stepped out. A few minutes were spent explaining the mysteries of haulage ropes and roadways; then we started for the face. "Now keep your back well bent; it's only four feet high, so be careful!"

We tramped steadily. He stumbled; his eyes were unaccustomed to the faint light of a safety lamp. He failed to keep his head low enough, and hit a baulk. I turned round. The perspiration was streaming down his face, his breathing was labored, and we had only gone four hundred yards. We halted a few minutes; I warned him to stoop lower, and away we went again.

At last we arrived at the deputy's place, and I handed him a pair of leather knee-pads. "What are these for?" he asked. I fixed them for him, explaining that they were to protect his knees when creeping. "Are we going to creep?" "Yes." "Is it far?" "No; keep your back well down and follow me! . . .

"Here we are. That's the face. Now get down, and we'll crawl along to where the coal-cutter is working."

With great difficulty he got into the twenty-inch-high passage, and we dragged ourselves along. Men were working stripped to the waist and bathed in perspiration. One stopped the machine and explained how it worked. We pulled ourselves back a little. "Right; set her away!" The power was switched on, and the machine began working.

Flying coal dust filled the air till you could not see. The stench of heating oil and the sweat of human bodies made it impossible to breathe. The Colonel coughed and spluttered as the coal dust got into his throat. The roof "weighed," the supports creaked, the coal cracked like rolls of thunder.

The scene was indescribable. We half crawled, half dragged ourselves along. "Let's get out of this," pleaded our visitor. So out we got, and made our way to the shaft. The visitor reeled like a drunken man. His head hit the roof. Down went his head and up went his back. He fell on his knees. Out went his lamp. One lamp between two of us. After many stops we arrived at the shaft, and then up into the fresh air. With great difficulty he stretched himself erect. His back ached, his head ached, his knees ached.

I asked him what he thought of it all. His answer came like a burst of thunder. "It's like Hell! Absolutely the rottenest job I ever saw. I am sorry for those fellows. I wonder they stick it. Fancy sticking a job like that for ten shillings a day! It's a rotten job. Absolutely rotten!"

I don't think he'll want to see a coal-cutting machine at work in a twenty-inch seam any more for a while.

* * *

In their efforts to obtain satisfactory livelihoods, wage workers frequently phrase their objective as that of receiving "a decent standard of living." What is such a standard? No one knows exactly. It varies according to time, place, and person. Numerous studies have been made, however, which fix certain standards of living and then compute the amount of money income required to maintain them. The general nature of such studies is indicated by the following statement contrasting the average income of wage workers during the period of post-war prosperity and the income required to meet the modest standard of living described.

WAGES AND STANDARDS OF LIVING ²

by Harry W. Laidler

THE United States Bureau of Labor Statistics in 1919 worked out a tentative budget which, in its opinion, was necessary to maintain a family of five in Washington, D. C., at a level of health and decency—by no means an ideal standard. The sum fixed by the Bureau was \$2,262.47 (\$43.51 a week).³ The budget was a modest one. It would provide for the family:

1. Nourishing food.
2. Houses in low-rent neighborhoods and within the smallest number of rooms consistent with decency (about four rooms and a bath).
3. The upkeep of household equipment, but with no provision for the purchase of additional furniture.
4. Clothing sufficient for warmth, "but with no more regard for style than would permit one to appear in public without slovenliness or loss of self-respect."

One woolen suit, one woolen dress and one winter hat could be purchased every second year, but no silk stockings or dresses and no house slippers. The family could spend \$80 a year for doctor, dentist and oculist; \$20 for amusement and recreation—a vacation in the country would be out of the question; \$10 for union dues, \$13 for church and religious organizations, and \$52 for incidentals. A small amount could be set aside for insurance and carfare, but practically none for saving. And yet we find that the average worker in 1919 was earning far less than this minimum; that in the previous year, 1918, nearly seven out of every

² Adapted from *How American Lives*, League for Industrial Democracy, 1924.

³ It should be recognized that budgets are subject to continual revision because of changing prices.

eight wage earners were getting less than \$2,000 a year, the average wage being not quite one-half of the minimum (\$1,078).

* * *

The fact that so many people receive their money incomes in the form of wages results in a widespread interest in the question of how wages are determined. Theories endeavoring to answer the question are continually being advanced. There is always disagreement among the fabricators of such theories. Some argue that wage rates are fixed by all-pervading economic laws over which neither employers nor employees can exercise any direct control. Others contend that wages are determined by factors which are all very flexible and easy to manipulate. The problem of explaining how wages are determined is complicated by the fact that there are so many different rates of wages. They vary according to time, place, industry, type of job, sex, color and age of workers, and many other things. There is no one "general rate of wages." Furthermore, confusion arises out of the fact that when people talk about "wages" they sometimes mean wage rates (dollars per day, without reference to the number of days' employment per year) and sometimes they mean wage payments (dollars per year, *i.e.*, the wage rate per day multiplied by the number of days' employment in the year).

Business men frequently assert that wage rates are fixed by the "law of supply and demand." The number of workers available affects the offers of employers for the services of workers. The number of jobs influences the price at which workers are willing to sell their services. These are market facts beyond the control of either the employer or the worker. The employer is forced by competition to pay all that he can afford, considering the ability of his employees. Workers are free to move if they are not satisfied with their wages. Thus, according to those who advance this explanation of how wages are determined, it is futile to attempt to tamper with wage rates because competition among workers for jobs and among employers for workers will automatically set fair rates.

Labor leaders are inclined to scoff at the "supply and demand" explanation of wage rates, claiming that the employer is in a superior bargaining position which enables him to pay his workers far less than the worth of their services. Workers must combine, they say, and bargain collectively.

Economists, seeking to avoid the pitfalls of employer-laborer controversies, have made elaborate studies of actual wage rates and advanced numerous theories of wages. Still they are not agreed on the extent to which wage rates can be controlled by the parties to them.

It is clear that no industrial enterprise can pay out to the various people who have claims upon it—sellers of raw materials, wage earners, and owners—more than is received from various sources, chiefly the sale of finished products. Unless the income is increased or costs are reduced in some way, an increase in wage rates must come out of the owner's income. The total income of an enterprise is generally dependent on the price of the product and the number of units sold, which in turn depend partly on the management and partly on market conditions beyond the control of the management. Dull times may mean low prices and small sales, no matter how able the sales department may be. The costs other than wages are also in part controlled by the managers and in part by outside influences. The management, while having a certain amount of control over such costs as those involved in efficient or inefficient use of machinery, very frequently have little power to determine the cost of raw materials.

Labor costs can be controlled to some extent by the managers of an enterprise through adapting workers to jobs calling for their most marked aptitudes, routing work skillfully, *et cetera*. On the other hand, the management is generally required to pay somewhere near the wages the workers could get at other jobs if any happen to be available. What that wage is depends, in part, upon general business conditions and the scarcity or abundance of labor.

If there are no possibilities of increasing the total income of an enterprise or of reducing its nonlabor and labor costs through increased efficiency, any increase in wages must come out of the profits. What are the possibilities in this direction? For the workers the answer depends, in large measure, upon the amount of profits, the number of workers to share in them, and the amount that can be transferred into the pay envelopes without putting the enterprise out of business. How high must profits remain to assure continuance of an enterprise? High enough so that the investor is persuaded not to withdraw and seek another form of investment. Otherwise, as industry is at present organized, the workers would be out of their jobs. It appears, then, that efforts to control wage rates must be based on a knowledge of the factors which affect the income and nonlabor costs of an enterprise as well as the wage rates paid by others.

Trade unionists focus their attention on the failures of competition to protect the workers, and insist that only through collective bargaining can they hope to get fair pay for their work. In the following article, the late Mr. Gompers, for many years president of the American Federation of Labor, outlines what he conceived to be the necessity and purpose of trade unionism.

PROPERTY POWER *vs.* LABOR POWER⁴*by Samuel Gompers*

THE eternal problem with which the labor movement has to cope is control of property—to bring property into such relations to human life that it will serve and not injure. The struggle has been long and hard; but the day is past when the labor movement has to justify its right to be classified as a necessary agency with a function to perform in achieving greater freedom and justice. Its claim to acceptance as an instrumentality for achieving human progress is based upon the nature and the value of the service it renders. It was born out of efforts of workers to think out modern phases of that world-old universal problem—property.

Progress, whether evolutionary or revolutionary, up to the Nineteenth Century put agencies of control into ever-widening groups of property owners, until there remained disinherited politically as well as economically only those who held no property but who worked for others. With the decline of feudalism, which did impose a degree of responsibility upon the overlord for the well-being of his serfs and villeins and assured them permanence of relations, there developed the modern industrial system, under which relations between those who worked and those who hired became purely industrial, impersonal, regarded by employers as a part of their mechanism for profits.

Under this industrial order employees lost standing as individuals. As wage-earners only and as factors in great industrial systems they no longer owned the tools of production; they lost even a qualified ownership of land or property, they became a part of the machinery of production and distribution, without permanence of employment or assurance of securing the necessities for livelihood. Under such conditions there could be no dignity of life or service, no opportunity for individuality, no freedom. The crushing irresponsible power of employers threatened to grind the creative energy of one generation only to seize upon the next generation weakened by inherited tendencies due to economic oppression until the masses of the nations sank to sweatshop standards. Undernourished weaklings who work long hours and are denied the right to direct their own lives do not normally have strong, resourceful, masterful children.

Out of their need, out of their oppression, out of their weakness, wage-earners evolved an agency for their protection. They reasoned that if they were denied the right to a voice in determining the terms under which they worked, they would fold their arms and refuse to work. Human labor power is necessary to coördinate the machinery and the process of production. By striking, by withholding labor power, wage-earners can bring employers to an appreciation of the value of the human element in production. That service, so customary that employers have

⁴ From an article in the *American Federationist*, November, 1916, page 1037.

taken it for granted, is part of a human life. When all reason fails, strikes can put better understanding into the minds of the employers and induce them to a proper regard for employees. Thus by the trade unions those who participate in the processes of industry have fought and won opportunity to a voice in management in industry. Those who use the tools have a right to say how long, for what returns, and under what conditions they will use the tools.

Trade unions are a very potent agency in the terrific struggle for industrial freedom which must precede real freedom, freedom for self-direction and self-control. Men and women cannot live during working hours under autocratic conditions, and instantly become sons and daughters of freedom as they step outside the shop gates. The experiences of the habits of the shop are indelibly ground into the souls and minds of the workers. Democracy must come in the factory and the shop before it can be realized in the life of the nation. So long as the factory boss has irresponsible power to hire and fire, to dole out the lowest wages for which men, women and children can work, his employees have no rights that must be respected, no sense of self-respect or dignity, no real freedom. Long hours of work, low wages, insanitary conditions of work, and waste of human power affect not only the working people but their homes, their children and their children's children.

Unchallenged control over large holdings and capital gives employers power—indeterminate, irresponsible, all-pervading power—over the lives of those who work for wages. Only by interposing a force which gives a power similar to that of property can wage-earners secure recognition of their rights—that force is economic organization. Through trade unions they match economic power with economic power, and their power is the more fundamental. It is control over activity.

Statements concerning the nature and fundamental aims of the organized labor movement differ markedly, not only in content but in mode of expression. A strike leader in the coal fields speaks one language, an American Federation of Labor official addressing a philosophical society or a university forum speaks another. These language contrasts are clearly shown in the following statement developing further the purposes of trade union organization.

TWO VOICES OF LABOR ⁵

by Lowell Mellett

THE executive council of the American Federation of Labor, in its annual report to the 1927 convention in Los Angeles, stated that "We

⁵ From an editorial in *The Washington (D. C.) News*, October 5, 1927.

believe in the essential justice and rightness of the labor movement, and have found that it promotes the purposes of both good business and humanitarian progress. No movement can maintain wholesome, sustained progress that does not have its roots in vital human activities, guide itself by the facts of experience and find its inspiration in ideals of human welfare. Because it does conform to these tests, we feel doubly assured that the labor movement will continue to make substantial progress."

Calm, quiet, even philosophical, that statement. Those who joined in it are men of poise, dignity, restraint; well-dressed, clean shaven; looking little different from any other board of directors. Yet, listen to this:

"They worked us eighteen hours in their slimy burrows.

"They killed us by the thousands beneath their rotten tops.

"They blew us skyward from the muzzles of their grassy shafts.

"They paid for sweat and blood and broken bones with wormy beans and rancid fat.

"They made us live in shacks unfit for swine and dogs.

"They forced us to go begging crusts of bread from brothers poor as we, displaying stumps and blinded eyes as our right to beg.

"They kept us in their stinking camps behind barbed wire and stockades like prisoners of war, like convicts doing time.

"And scarcely had the last clod hit our coffin when they drove our loved ones from their company shacks—to scrub and wash, to beg or steal or starve or rot.

"And then we met in the dark of night, in culverts, caves and deserted shafts to find a way from woe and want, from slavery and misery.

"Thus the union was born.

"At Braidwood, Ludlow and Panther Creek, at Mingo, Latimer and Virden, mute tombs still speak of the price we paid for our union.

"Now, you ask us to desert our union—the union that made us free. You ask, and we say the hell we will."

That appears in the issue of *The Illinois Miner* for October 1, 1927, as a reply to the suggestion that the miners of that state should abandon their organization as a step toward ending a strike which has been in progress since April 1. Not the same tone, is it? But every member of the dignified board described above could subscribe his name to the searing sentences penned by this anonymous spokesman for the miners. Somewhere in the consciousness of each of them is a remembrance of the conditions out of which he and his people have come—conditions to which they do not intend to return.

Leaders of organized labor are far from agreed as to what its aims are or should be. Outside the ranks of unionism are a substantial number of citizens who oppose not only particular aims of organized labor, but also the basic idea that wage workers should band themselves together to promote their group interests. In spite of this, there

has been enough agreement among certain types of workers, and enough driving force, to result in the development of a formidable organized labor movement in the United States. A general description of the growth and extent of this movement includes two statistical statements prepared by the same author.

THE GROWTH OF THE AMERICAN LABOR MOVEMENT⁶

by Leo Wolman

IF A labor movement be defined as a continuous organization of wage earners or of industrial workers, the American labor movement cannot be said to have begun much before 1880. It is true, of course, that there existed as early as 1800 organized wage earners who conducted their activities in much the same way as does organized labor today. These groups, however, showed but slight continuity. The labor movement before 1880, except for a few national unions like the Bricklayers', Molders', Iron and Steel workers', was no more than the rise and fall of organizations, stimulated by favorable economic conditions and disintegrated by industrial depressions or by internal dissension over conflicting social programs.

The class of industrial wage earners, for example, was not yet as clearly fixed as it is at the present time. Industrial wage earners, although members of trade unions, would frequently throw in their lot with other elements in the community in revolt against the old political parties or in protest against particular evils. Labor and farmers would thus be found uniting for the purpose of effecting currency and similar reforms. At the same time, the population of the United States was constantly changing through the influx of large numbers of immigrants who brought into the country their own conceptions of the purposes of trade unionism and of the nature of social ends. It was thus natural that variants of socialism, syndicalism, anarchism, and of other programs of social action should grow up and be seized upon by groups of workmen and by their leaders from among the intellectuals, as the material for political and industrial platforms. This did, indeed, come to be the case and groups formed new and rapidly changing alignments, related to one or another of the many programs of social reform. Together with these excursions into political action and social philosophy, trade unionism, as we know it today, appeared from time to time in the 'thirties, 'fifties and 'sixties, in some instances to survive in the national organizations of today and in others to disintegrate under the influence of adverse economic conditions or of defects in the machinery of organization.

Roughly about 1890 begins the modern phase of the American labor

⁶ Adapted from "An Outline of the American Labor Movement," *Workers' Education Pamphlet*, Series No. 2, Workers' Education Bureau of America, 1923.

movement. By that year the supremacy of the American Federation of Labor over the Knights of Labor was acknowledged; the beginnings had been made in the federation of many of the national trade unions which were then already in existence and in the organization of new trade unions. Committed to the policies of trade autonomy and non-partisan political action, the movement entered in the early 'nineties a period of slow, but substantial growth, which terminated only with the declaration of war in 1914. In these twenty-five years American trade unions have fallen into two groups—the one of unions affiliated with the American Federation of Labor, and the other of independent unions like the railroad brotherhoods—each of which has made marked progress in numbers and in power.

In spite of serious difficulties, the movement has made considerable advance in cohesion and solidarity. Unions affiliated with the American Federation of Labor grew in number and power. The railroad brotherhoods remained the most important group of trade unions not affiliated with the American Federation of Labor. Within the Federation, successful efforts were made to acquire greater cohesion and, consequently, more effective action. Groups of national unions affiliated with the Federation became associated in loose federations, such as the Building Trades Department and the Metal Trades Department, which had their counterpart in local councils of the same character. While far from total amalgamation, the formation of these departments and local councils represents a long and significant step in the direction of that unity of purpose and action which the American labor movement has so sadly lacked.

It was not long after the outbreak of war in Europe that the economic effects of war made themselves felt in this country. The Allies became heavy purchasers of American products. The depression of 1914 was turned into a business boom. Immigration into the United States stopped. There resulted a scarcity of labor and an active demand of employers for workingmen. These conditions, which existed as early as 1916, grew more intense after our entry into the war in 1917. Abnormal business activity was soon followed by the adoption of a policy of government control over industry. As a part of this system of industrial control various labor administrations were set up in basic industries by the federal government, and to them was entrusted the definition and administration of a federal labor policy. Almost without exception, this public policy assumed attitudes highly favorable to organized labor. By its terms public recognition and support were given to the place in industry of collective bargaining between *bona fide* labor unions of workingmen and organizations of employers. With favorable economic conditions, therefore, and the encouragement of the government, trade unionism spread rapidly and penetrated industries and occupations where it had before been unable to get even a foothold. The close of the war was

soon followed by the post-armistice boom, when industrial conditions became even more favorable to the spread of organization among workingmen than before. In less than five years, trade unions more than doubled their membership and made headway even in such industries as packing, hitherto practically unorganized. Only one stronghold, the steel industry, was not captured.

This extension of organization and rise in influence were accompanied by the infiltration into the American labor movement of new ideas concerning the nature of a labor movement. Demands were made for a greater measure of workers' control; old trade-union demands were translated into terms of industrial democracy. Workers wanted a voice in the management. On the railroads a concrete proposal for such participation in management actually appeared in the form of the Plumb Plan and received serious consideration. In the government arsenal at Rock Island a plan of workers' representation and participation in management was put into operation.

By the middle of 1920, however, the business boom turned into a severe depression. Thousands of firms failed. In less than a year an army of industrial wage earners, estimated at from 4 to 6 millions, became unemployed. Instead of an acute labor shortage, the labor market was overstocked. This condition brought its customary consequences. In places where trade unions were of recent origin and comparatively weak, they succumbed to the attacks of hostile employers. It is probable that trade unions lost in this period substantially more than 1,500,000 mem-

TOTAL MEMBERSHIP OF AMERICAN TRADE UNIONS¹
1897-1926^a

Year	Membership	Year	Membership
1897.....	447,000	1911.....	2,382,800
1898.....	500,000	1912.....	2,483,500
1899.....	611,000	1913.....	2,753,400
1900.....	868,500	1914.....	2,716,900
1901.....	1,124,700	1915.....	2,607,700
1902.....	1,375,900	1916.....	2,808,000
1903.....	1,913,900	1917.....	3,104,600
1904.....	2,072,700	1918.....	3,508,400
1905.....	2,022,300	1919.....	4,169,100
1906.....	1,958,700	1920.....	5,110,800
1907.....	2,122,800	1921.....	4,815,000
1908.....	2,130,600	1922.....	4,059,400
1909.....	2,047,400	1923.....	3,780,000
1910.....	2,184,200	1926.....	4,443,523

¹ From *The Growth of Trade Unions, 1880-1923*, National Bureau of Economics Research, 1924.

^a The figures through 1923 were prepared by Mr. Wolman. The figure for 1926 is from the *Monthly Labor Review*, U. S. Department of Labor, August, 1926.

PER CENT OF WAGE EARNERS ORGANIZED IN
MAJOR DIVISIONS OF INDUSTRY
1920 AND 1910 ⁸

Division of Industry	Per Cent Organized	
	1920	1910
Extraction of minerals.....	41.0	27.3
Transportation.....	37.2	17.1
Building trades.....	25.5	16.4
Manufacturing industries.....	23.2	11.6
Stationary firemen.....	19.9	9.6
Stationary engineers.....	12.4	4.6
Clerical occupations.....	8.3	1.8
Public service.....	7.3	2.5
Professional service.....	5.4	4.6
Domestic and personal service.....	3.8	2.0
Trade.....	1.1	1.0

bers. Both organized and unorganized workers in all industries lost heavily of their war gains through wage reductions, increased hours, and modifications in their working rules. By the fall of 1922, however, the period of labor liquidation had practically ceased. Opportunities for employment were numerous. Prices were rising. The number of wage advances far exceeded the reductions; and the membership of unions was again growing.

In organizing to promote their common interests, wage workers follow no standard pattern. Many people have the impression that a "union" is everywhere the same kind of organization, and that the term "organized labor" is a term which describes a more or less standardized type of arrangement. Such is not the case. Just as the aims of labor organizations show a striking degree of variation, so the forms these organizations take are similarly diverse. The local union, composed of workers of a given group who are employed in a town, city, or even wider geographical area, is the basic unit of labor organization. Some of these local unions admit only workers of one craft. Some exist for workers of several related crafts. Others serve all workers of one or even more industries, while many pursue practices intermediate between these extremes. The relative merits of the craft as opposed to the industrial form of organization are often hotly debated among trade unionists.

⁸ *Ibid.*

The structure of American trade unionism is further complicated by the fact that the local unions are joined together in overlapping systems of federations, affiliations, and alliances. Practically every local union, whether it be predominantly of the craft or the industrial type, is federated with other similar local unions in a national or international organization. Thus the International Association of Machinists is made up of a large number of local unions, or lodges, of machinists scattered throughout the towns and cities of the United States, Canada and Mexico. Power to make the more important decisions regarding the activities of organized machinists throughout this territory rests largely in the hands of the international union, rather than in the hands of its constituent locals. Since other international unions have similar authority, we may consider the international to be the governing unit of American trade unionism. Besides belonging to an international union, a local union may also belong to state or city federations of labor which unite the unions of a given geographical area without reference to craft or industrial lines. Local unions are also joined together in still other alliances existing for particular purposes. Below are listed a few of the more important national and international unions affiliated with the American Federation of Labor. Estimates of membership in 1927 are based on the average membership reported or upon dues paid to the American Federation of Labor.

SOME NATIONAL AND INTERNATIONAL UNIONS ⁹

<i>Organization</i>	<i>Membership in 1927</i>
Actors' Associated and Artists of America	10,300
Journeyman Barbers' International Union	54,500
Bricklayers', Masons', and Plasterers' International Union of America	83,700
United Brotherhood of Carpenters and Joiners	322,000
International Brotherhood of Electrical Workers . . .	142,000
United Garment Workers of America	47,500
International Association of Machinists	72,300
United Mine Workers of America	400,000
Brotherhood of Painters, Decorators and Paperhangers	112,900
International Printing Pressmen's and Assistants' Union of North America	40,000
Order of Railroad Telegraphers	35,000
United Textile Workers of America	30,000
International Typographical Union	74,900

* * *

⁹ Reprinted from the *Report of the Proceedings of the Forty-Seventh Annual Convention of the American Federation of Labor*, 1927, pages 28-29.

At the top of the hierarchy of trade unionism, embracing within itself various types of unionism and coördinating the activities of many different national and international unions, state and city federations and other forms of labor organization, stands the American Federation of Labor. A majority of the more important trade unions in the United States belong to this body, although there are some large and powerful unions, notably the "Railway Brotherhoods" of locomotive engineers, locomotive firemen, train conductors, and trainmen, and the Amalgamated Clothing Workers, which remain outside of its ranks.

THE AMERICAN FEDERATION OF LABOR ¹⁰

by Samuel Gompers and Matthew Woll

THE A. F. of L., as its name implies, is a federation, and not, as it is often mistakenly called, an organization. It is a federation of organizations, each of which has its own government, determined by its own needs and requirements, the result of the experiences of the members of the organization. This right to self-government was recognized in the beginning, and has been reaffirmed and adhered to as consistently as possible. The Federation has no powers except those which are authorized and conceded by the organizations which compose it. These powers are enumerated in its written constitution and the directions received by conventions.

The Federation covers practically the whole field of industry. There are no limitations as to membership. The only requirement, so far as the A. F. of L. is concerned, is that the organization desiring affiliation shall be composed of wage-earners. The member organizations are international trade unions, in themselves complete and autonomous in character. There is vested in the American Federation of Labor only such power and authority as these federated International Unions have delegated or may delegate to the American Federation of Labor.

The principal requirement contained in the articles of federation, or the constitution of the American Federation of Labor, is that no International Union shall interfere with, transgress upon or overlap the recognized trade or calling of another International Union. No two International Trade Unions are permitted to embrace in their membership workers engaged in the same character of work or calling.

Difficulties present themselves at times in clearly defining trades and industries and the American Federation of Labor is called on to adjust or to determine conflicting claims of jurisdiction as they arise. While the international unions have delegated this authority to the American

¹⁰ Adapted from *Readings in Trade Unionism* by David J. Saposs, copyright 1926 by Workers' Education Bureau of America. (The first two paragraphs of the selection are by Mr. Gompers, and the others by Mr. Woll.)

Federation of Labor, the American Federation of Labor is without power to enforce its decision other than to suspend or revoke the charter of an affiliated International Union. This can only be done by a two-thirds vote of the convention.

Non-affiliation with the American Federation of Labor does not involve the enforcement of any penalty or measure of discipline. International Unions may associate or dissociate from the American Federation of Labor, as it is purely a voluntary federation. Its great strength is dependent entirely upon its fair and just dealing toward all federated unions.

While it is said that the American Federation of Labor largely resembles the United States government in its form and principle of organization, its distinguishing difference lies in the fact that the American Federation of Labor has no police power to enforce its decisions or to retain the membership of federated unions by other than moral influence. Its sole power and influence rest upon response to the maxim, "United we stand; divided we fall."

If each worker could obtain for himself satisfactory wages and working conditions through his own initiative, there would be slight occasion for trade union organization. It is in order to carry on his bargaining negotiations with his employer as a member of a large group that he joins a labor organization. He wishes to bargain collectively instead of individually, knowing that in numbers there is strength. The employer not infrequently prefers to deal with his workers as individuals, and resists the attempt to enforce collective bargaining. Without it, trade unionists claim, a union is little more than a social club. The "right" of collective bargaining is regarded as a cornerstone of successful unionism,—and its recognition is therefore one of the first objectives of trade unions. The following article explains collective bargaining.

THE "RIGHT" OF COLLECTIVE BARGAINING ¹¹

by Willard E. Atkins and Harold D. Laswell

IN ITS external relations the union must be regarded as a conflict group. It has no assured status. The legal institutions of society do not limit the amount of profits which are to go to the owners of capital, nor prescribe what workers are to receive as wages. Recognized standards of what is the proper basis of distribution do not exist. Thus, workers think it necessary to make demands and press them with force or threat of force.

¹¹ Adapted from *Labor Attitudes and Problems*, Atkins and Laswell, Prentice-Hall, Inc., 1924, pages 339-340.

Collective bargaining is a form of negotiation between employers and organized employees which attempts to arrange a definite agreement covering their mutual relations, usually for a fixed period of time. Collective bargaining is now accepted by some as an integral part of the established order of things. But this was not as true fifty years ago as it is now. The managers of industry were more accustomed then to think of every decision respecting wages, hours, and conditions of work as matters to be arranged by individual bargaining. They refused, much as they do today, but with more success, to discuss wage contracts with representatives of their workers, and they especially refused to meet with supposed representatives of the workers who were not among their own plant employees.

When negotiation was denied them, the workers deemed it advisable to assert their interests by declarations of war without diplomatic negotiations. Strikes were called in separate shops of the same company for the purpose of causing inconvenience and delay in getting out orders. Or sudden strikes were called of the entire working force whenever it was judged that the employer would suffer most from a suspension of production. A thousand tormenting devices were and are yet used on occasions. This perpetual guerrilla warfare made the costs of production very uncertain, and rendered it impossible for the employer to enter into future contracts with the confidence that he could meet his obligations.

Under such circumstances some regularized negotiation of terms offered advantages on both sides. Employers might sacrifice some part of their control over working conditions, if the union would assume responsibility for securing competent workmen and assure uninterrupted production during the contract interval. The workers, on their side, could sacrifice the right of suspension during the contract interval in return for assurance that their standards would not be undercut by the employer.

In the last analysis the "right of collective bargaining" was established as a concession to the power of the workers to damage the employers. This power to injure is basic, and has always been the process by which a new group has secured a share in the control of the conditions of society which affect it. Though origins lie in might, in time the thing fought for becomes accepted and, in turn, is referred to as a "right."

It is frequently asserted by those opposed to trade unionism that it holds down to the dead level of mediocrity those who might forge ahead to great economic success because of superior ability. Advocates of trade unionism retort that it keeps the members of the group from being forced into positions comparable to that of the weakest bargainer in the group—a situation which, they insist, would prevail if each worker dealt with his employer as an individual. Some light is thrown upon this controversy in the following statement dealing with the principle of standardization in trade unionism.

STANDARDIZATION IN TRADE UNIONS¹²

by Robert F. Hoxie

THE key to the understanding of union rules and actions is to be found in the fundamental principles and theories of their program. If you understand these thoroughly, and the policies to which they give rise, you can generally explain any given rule or act without difficulty; and without that understanding you are almost certain to go astray.

Let us then, by way of illustration, take one of the fundamental principles of business unionism, the principle of uniformity or standardization, and use it as a partial explanation of union policies, demands, and methods. This principle requires that all the men doing the same work use the same kind of tools and materials, work normally the same length of time and at the same speed, turn out the same quantity and quality of goods, and receive the same rate of wages. The union argument on which the principle rests runs somewhat as follows:

1. Wages and conditions of employment are determined by the relative bargaining strength of the workers and employers of the industrial

2. Under competitive conditions the bargaining strength of the employer is greater than that of the individual laborer, because of (a) the superior bargaining knowledge, skill, and waiting power of the employer; (b) the smaller object which he has at stake—pecuniary profits versus life; (c) the presence of an actual or potential oversupply of labor; (d) the limitation of the bargaining strength of the labor group to the competitive strength of its weakest member.

3. The full bargaining strength of the employer is bound to be exercised against the workers because under competitive conditions the pressure of the consuming public for cheap goods is transmitted through the retailer and the wholesaler to the most unscrupulous employer, who sets the pace; while under monopolistic conditions the employer controls the available jobs.

4. Therefore, allowing the employer to pit his bargaining strength against the bargaining strength of each worker, thus fixing their different rates of work, wages, etc., means the progressive deterioration of the wages and conditions of employment of the group.

5. The only way to prevent this deterioration is to rule out competition by establishing and maintaining the principle of uniformity or standardization, *i.e.*, to require for all the men doing the same work the use of the same kinds of tools and materials, the same working time, the same speed, the same quality of work, and the same output.

Let us see what light this policy throws upon the policies, demands, methods, and attitudes found in the union program. The main purpose of this principle, as we have seen, is to rule out competition. But competition is possible in regard to the wage rate, hours of labor, or the

¹² Adapted from an unpublished lecture, May 17, 1914.

exertion and output of the individual. To prevent the first the establishment of a standard rate of wages at a fixed minimum is necessary. The prevention of the second requires the fixing of a normal day or week as a maximum. The third, in like manner, necessitates uniformity in the conditions and rate of work. It is obvious that these conditions working together make the standard rate a practical maximum as well as a minimum. Hence there arises the tendency toward dead-line mediocrity.

Competition, however, is possible not only in regard to the wage rate, the hours, and the output, but also in regard to the safety and sanitation, the comfort and the convenience of the shop; the times of beginning and ending of work; the arrangement of shifts; the time, place, mode, and character of pay; the materials and tools used; and all the minor details of the conditions of work and pay. Hence, to secure uniformity, there arises the necessity of minute specifications of standards in regard to all the incidents of work and pay, from which no deviation can normally be allowed. This explains a multitude of petty and harassing restrictions of which employers complain, the validity of which rests, not on their immediate character and effects, but on the validity of the general principle of uniformity.

A large part of the trade-union program is thus seen to be a direct effort to establish specific standards incidental to the principle of uniformity. Another large portion is in the interest of enforcement of conditions essential to their existence.

Let us first consider the latter. It is evident that those standards cannot exist if they are violated with impunity; still, successful enterprise demands flexibility. Hence there has grown up a long list of irregularities and violations permitted but charged with penalties. These have the double object of stopping underbidding and of preventing the irregular practices from becoming regularly established. For example, overtime, the doing of extraordinary kinds of work, and the doing of work in irregular ways are allowed, but only on condition of extra pay.

These standards, moreover, are hard to establish and maintain in a thoroughly dynamic industrial state, where new trades are evolving, and new processes are coming in constantly. This in part explains the undoubted tendency of unions to restrict new trades, new machinery, new methods, and new processes in industry—in short, industrial progress.

If we turn to the enforcement of these standards, we shall find that another large block of union policies and demands are, in part at least, in the interests of the principle of uniformity, and are valid if it is valid. The enforcement of these standards means the common rule. But to secure this you must have collective bargaining, or legislation. Collective bargaining implies recognition of the union and all the complex machinery for the making and enforcement of contracts.

Moreover, you cannot enforce these standards unless you control the workers. This in part explains apprenticeship regulations, and to the unionist calls absolutely for the closed shop and the control of hiring and discharge of men. It is evident that if you cannot control the men

you cannot cut out underbidding in its manifold guises. This is especially true, since the employer is always supposed to be trying to induce it by "swifts," "bell-horses," secret bonuses, frightening the men, etc.

To enforce uniformity you must also have control over the output of the individual and you must control the processes of production. You must prevent the use of methods of stimulation, such as bonus systems, etc., by the employer. Moreover, you must stop up every minutest loop-hole for the evasion of the principle by the employer. Hence you must watch him carefully; you must have walking delegates on the job. You must carefully delimit the field of work, and prevent reclassification, so that the employer cannot create exceptions by the use of new men or new work. Here again we find explanation of a great number of harassing detailed demands and rules which the unions endeavor to enforce.

It follows, then, that a large portion of the more specific part of the trade-union program is implied in the principle of uniformity and flows directly from the effort to establish and enforce it.

When successful in bargaining as a group, the workers generally seek to put the conditions of their employment into a trade agreement. They hold that such agreements are advantageous not only to them but also to the employers with whom they are negotiated. The nature and significance of these agreements are discussed by a former trade union leader in the following selection.

TRADE AGREEMENTS ¹³

by John Mitchell

THE trade agreement represents the very essence of trade unionism. In its simplest forms the agreement is nothing but a determination of wages, hours of labor, and conditions of work by men in a single establishment or a single local community. From the very beginning of labor organization, agreements of this nature have been made by men working in the same establishment or the same town, and these agreements, whether verbal or written, have been binding upon all the men so engaged. These agreements have sometimes been nothing more than the simple formulation of shop rules, the determination of the length of the working-day, and similar matters, which have thus been taken out of the realm of individual bargaining between the employer and each separate employee, and have been incorporated into a contract binding upon all.

Trade agreements, therefore, even in their simplest form, represent the central idea for which trade unionism stands, viz., the collective or joint bargain, and they presuppose the existence of a union, and, in case of agreements upon a larger scale, associations of employers as well as of

¹³ From *Organized Labor*, American Book and Bible House, Philadelphia, Pa., 1903, pages 350-353.

workmen. The difficulty in the way of forming trade agreements in the past has been this lack of organization upon the part of employers, and it has been largely due to the stimulus of trade unionism that employers have organized upon a national basis and have entered into yearly contracts with their workmen.

Joint agreements are, in fact, treaties of peace determining the conditions under which the industry will be carried on for a year, although longer agreements have been made and maintained. The agreement usually provides for the settlement or arbitration of all controversies which may arise under it. It is provided, however, that the arbitration shall be limited entirely to the interpretation of the agreement. In the contracts existing in the bituminous coal mining industry, it is provided that in the case of a dispute arising between any operator and miner over a point covered by the interstate agreement, that cannot be settled between the parties directly at interest, appeals may be taken from one tribunal to another until the court of last resort is reached. During the course of the dispute, however, the men remain at work, and as a result of the trade agreement and of the provisions therein contained, the number of petty local strikes has been minimized and conflicts of this nature have almost entirely disappeared.

Trade agreements are a matter of business. The representatives of the employers do not desire to pay higher wages than are necessary, and the workmen do not wish to take smaller wages than they must. To this very fact, that the two parties must meet upon the plane of business, it is due that the best results are obtained. The attitude of mind which dictates the making of the ordinary business contracts prevails in the formulation of trade agreements. Instead of a loose verbal agreement, the trade agreement is usually a written document, stating in precise terms its various provisions, so that there is little possibility of error. Moreover, for such difficulties as arise in interpretation, a system of arbitration is usually provided. Trade agreements thus obviate hundreds of little misunderstandings which might otherwise lead to recrimination and to strikes and lockouts. In the course of a few years of experience, therefore, the trade agreements become fixed upon a settled basis, and their general provisions become universally known.

Selected provisions of a typical trade agreement are presented below. The agreement from which this selection was made was negotiated between the Baltimore and Ohio Railroad Company and its railroad shop employees, who, although they represent several different crafts and are organized into several different craft unions, join together in a federation of shop workers for the purpose of carrying on negotiations with their common employer. The agreement went into effect May 16, 1923.

A TRADE AGREEMENT ¹⁴

THE following rules and working conditions will apply to machinists, boilermakers, blacksmiths, sheet metal workers, electrical workers, carmen, their apprentices and helpers (including coach cleaners), in the maintenance of equipment, maintenance of way, signal maintenance, telephone and telegraph maintenance, and all other departments, performing the work specified herein, superseding all other rules and agreements.

GENERAL RULES

Rule 1.

Eight hours shall constitute a day's work. All employees coming under the provisions of this agreement, except as otherwise provided in this schedule of rules, or as may hereafter be legally established between the carrier and the employees, shall be paid on the hourly basis.

Rule 4.

For continuous service after regular working hours employees will be paid time and one-half on the actual minute basis, with a minimum of one hour for any such service performed.

Rule 13.

When an employee is required to fill the place of another employee receiving a higher rate of pay he shall receive the higher rate; but if required to fill temporarily the place of another employee receiving lower rate, his rate will not be changed.

Rule 25.

Employees laid off on account of reduction in force, who desire to seek employment elsewhere, will, upon application, be furnished with a pass to any point desired on the Baltimore and Ohio Railroad System.

Rule 39.

The ratio of apprentices in their respective crafts shall not be more than one to every five mechanics.

Rule 40.

The minimum rates of pay will be as follows:

¹⁴ From a Baltimore and Ohio R. R. trade agreement.

<i>Class of Employees</i>	<i>Minimum Rate per Hour</i>
Machinists	73 cents
Boilermakers	73 cents
Blacksmiths	73 cents
Sheet metal workers	73 cents
Electrical workers covered by Rule 125	73 cents
Electrical workers covered by Rule 126	69 cents
Electrical workers covered by Rule 127	63 cents
Electrical workers covered by Rule 128	56 cents
Carmen (Passenger car work, including upholsterers, pattern makers, cabinet makers, and locomotive and passenger car painters)	73 cents
Carmen (Freight car work, including freight car painters)	66 cents
Car inspectors (Freight and passenger)	66 cents
Helpers—All crafts	50 cents
Car cleaners and preparers	39½ cents

<i>Apprentices</i>	<i>Regular</i>	<i>Helper</i>
First Year 1st 6 mos.	30 cents	50 cents
2d 6 mos.	32½ cents	52 cents
Second Year ... 1st 6 mos.	35 cents	54 cents
2d 6 mos.	37½ cents	56 cents
Third Year 1st 6 mos.	40 cents	58 cents
2d 6 mos.	42½ cents	60 cents
Fourth Year ... 1st 6 mos.	47½ cents	
2d 6 mos.	55 cents	

Rule 42.

Good drinking water and ice will be furnished. Sanitary drinking fountains will be provided where necessary. Pits and floors, lockers, toilets, and wash rooms will be kept in good repair and in a clean, dry, and sanitary condition. Shops, locker rooms, and wash rooms will be lighted and heated in the best manner possible consistent with the source of heat and light available at the point in question.

Rule 51.

No employees will be required to work under a locomotive or car without being protected by proper signals. Where the nature of the work to be done requires it, locomotives or passenger cars will be placed over a pit, if available.

Rule 52.

In shops and roundhouses not now equipped with connections for taking the steam from engines, arrangements will be made to equip them so that steam from locomotives will not be blown off inside the house.

When unorganized workers are not satisfied with the conditions of their employment they quit—that is, if they have any reserve funds upon which to live while seeking other jobs. When organized workers find themselves in a similar situation they also generally quit, but quit in a group instead of as individuals. Such action has come to be known as a strike. There follow two articles dealing with strikes, one giving a labor view of the often cited economic waste involved in strikes, and the other giving a labor representative's report of the conduct of a strike.

ARE STRIKES WASTEFUL? ¹⁵

by James H. Maurer

Loss of wages, due to the coal miners' and railroad shop crafts' strikes which involved about one and a quarter million men, have recently caused much editorial concern. As one paper put it, "at four dollars a day, the strikers lose five millions a year, to say nothing of the loss to employers and stockholders."

Now, as a matter of fact, the wage-earners cannot lose something they never had. When they do not work, they do not earn anything, and, therefore, they cannot lose their wages they never earned. When employed, their labor produces value of product, but, without value produced, how can value be lost?

When men go on strike, they temporarily withdraw their labor-power from the industry in which they formerly sold it; and, when they reserve their labor-energy, keep it and don't sell it, it surely is illogical to say they lose what they keep.

When nations are at war, they seldom consider the cost of the conflict or the sacrifice of earning-power of men taken out of industry and used as soldiers. As an illustration, during our own American Revolution men quit their jobs, the farm and workshop, and joined the army to suffer, fight and die, not for a wage consideration but for an ideal. Who would dare say that the sacrifices these brave men and women made were not worth the price they paid? They put aside immediate welfare so that those who survived and their descendants who followed might enjoy political independence and economic security against foreign interference.

¹⁵ From the *Illinois Miner*, January 6, 1923. Reprinted in *Readings in Trades Unionism*, by David J. Saposs, copyright 1926 by the Workers' Education Bureau of America.

Just so in an industrial war. The workers voluntarily agree to take a vacation and join the strike, often to suffer hunger, eviction, imprisonment, and even death, not for the few dollars' strike benefits that their union may pay, or for the privilege of doing picket duty and being beaten by imported company thugs, but for an ideal. Who would dare say that the sacrifice these brave men and women made during the past half century and more were not worth the price they paid?

Only for these industrial struggles of organized labor, the workers would still live pretty much as their ancestors lived before the labor union came into existence. Every strike means a struggle to hold or advance the toiler's standard of living, greater economic security, better and happier homes, education for their children, improved and more humane working conditions, in fact, a better world in which to live.

Almost every forward step made by labor was bitterly contested and almost every inch gained was paid for by the self-sacrifice of workers who had the courage of their convictions.

If the editors wish to write of needless waste, let them editorialize upon the losses due to lockouts, black-lists, inefficiency of management, supporting of private armies of gunmen, labor spies, legal fees to beat the law, graft, slush funds to corrupt our public officials, etc.; or the editors might make a report on the loss due to enforced idleness during the past three years when there were, in the United States, something like five millions of workers, anxious and willing to work, but who were not allowed to work.

This would mean, according to the editors' calculation, a loss of \$20,000,000 a day, six billions of dollars a year, or a total of eighteen billions for three years, an amount about equal to what Uncle Sam spent a few years ago to make the world safe for democracy.

CONDUCTING A STRIKE ¹⁶

ON DECEMBER 14, 1920, the Cramp Ship and Engine Company posted a notice about their yard that in the future the officials of the company would deal only with the men individually and would not meet the committees appointed by the men with whom they had been dealing for about five years. This being against all the principles of trade unionism, the different organizations, not only those affiliated with the Delaware River Ship Builders' Council but also those included in the Metal Trades Department of the American Federation of Labor, took action on this matter and on January 17 a walkout took place including the following organizations: Blacksmiths, Carpenters, Boiler Makers, comprising four locals, Painters, Engineers, Sheet Metal Workers, Common Laborers and the Electricians who had no organization, but who have been kept in line by

¹⁶ From the report of an International representative on the Cramp strike, published in the *Boilermakers' and Iron Shipbuilders' Journal*, July, 1921, reprinted in *Readings in Trade Unionism*, by David J. Saposs, copyright 1926 by Workers' Education Bureau of America.

an international officer. After about one week of the strike, the Molders came out of their own accord, but were ordered back by their business agent, J. Cronin, who informed them that those not returning to their places would find them filled by men carrying cards in the Molders' Union from another city. Of course this caused these men to return to work. The Patternmakers and Draughtsmen never came out and are still working. The total number of men who answered the call was about 6,000; of this number there were about 3,000 men receiving strike benefits from their different strike organizations, so it became necessary for the men handling the strike to devise ways and means to care for those not receiving benefits.

An executive council was formed comprising one man from each local whose men were on strike. To these men fell the lot of raising the necessary funds to take care of the men not receiving strike benefits. They are given store orders twice a week, and the size of the order they receive is governed by the size of the family. This store is still in operation and is doing wonderful work towards the upkeep of the morale of the strikers.

Another branch of the executive council is known as the rent committee. The case of any delinquent man who has been threatened with eviction from his home, if he applies to this committee for redress, is investigated and if found to be correct his rent is paid.

A corps of doctors has been established in order to take care of the families of all strikers who happen to need their services. There are five doctors in this crew, and they have volunteered their services free of charge. There are three drug stores who have also agreed to fill all prescriptions issued by these physicians.

The wives, sisters, sweethearts of the strikers have been organized into an auxiliary and meet every Thursday evening, and addresses are made by the different International officers handling the strike. This organization has been of great assistance in this strike, not only in keeping the men on the picket line but in raising funds. A committee of these women visits the churches on Sunday mornings, and as the people come out of church they take up a collection. These women run coffee parties every week which net a good sum; raffles are also run at these coffee parties, with dancing afterwards.

The children of these strikers have formed an organization of their own, and on a good many corners of the city you will see candy and lemonade stands run by these children. The money derived from these is also turned in to the general committee. These children also parade up and down the street where the shipyard is located when what few men are employed are going to work; and by this method of picketing we have gained quite a number of recruits. There are about 4,000 children who are taking active interest in this strike.

Meetings of the strikers are held every day in the largest hall that can be obtained in the city, and the attendance is 100 per cent. It is well to mention now that, according to our roll calls, only about fifty men have

returned to work, and this is remarkable, owing to the condition in this city. The picket line has been kept in perfect condition; this is a very hard task, inasmuch as the police of the city have been very active in this strike, maintaining a constant guard of 1,500 police in and around the yard, motorcycle police who follow the cars that carry the scabs from work, mounted police at every corner also guarding the men until these scabs take the cars, patrol wagons about every four squares; so you can readily see the protection these scabs receive from city officials. Nevertheless, the sympathizers of the strikers have been able to keep the force of scabs from being of any size to hurt our cause any. Notwithstanding all the setbacks we have had, the strikers are more determined today than they were at the start of the strike. A monster minstrel show was held last week, put on and staged by the strikers themselves. The theatre was donated by the owner, musicians furnished by the Musicians' Union, and acts furnished by the International Alliance of Theatrical Stage Employees of America. This show ran three nights and was a tremendous success, and at each performance the S. R. O. sign was out.

Now any local or brother who reads this and believes this is a just fight for the right of collective bargaining, kindly help these men out by some small donation (large ones will not be refused).

Although the wage worker today may be earning what for himself is a satisfactory livelihood, tomorrow he may be out of a job, he may be maimed, or he may be dead. While these are risks everyone runs, they are particularly marked in the case of wage workers, who as a general rule have small financial reserves. Other aspects of the significance of accidents in an industrial community are suggested in the following brief statement.

SOMETHING TO THINK ABOUT¹⁷

by Negley Cochran

MEASURED in accidents to workers, the high cost of industry appears to be climbing.

Ninety-nine thousand workers seriously injured in one state in one year is something to think about. But this includes only those who were injured seriously enough to be disabled for over a week. Hundreds of thousands of men and women, in addition to the first 99,000, were disabled for less than a week.

The figures come from the New York State Department of Labor, and we are informed that 1042 workers were killed at their work during the year or died from their injuries.

¹⁷ Adapted from an editorial in the *New York Telegram*, August 16, 1927.

One trouble with reports like this is that we learn of these injuries and deaths in figures, and figures are cold. If we could go into the hospitals and homes and see broken heads, stubs of arms and legs, sightless eyes, saddened wives, widows and orphans, and the hopelessness of humanity in stricken homes, we could understand better what the figures mean.

Try to connect the figures with American homes when you read the following statement of facts and figures in the report:

"One of the most impressive facts is that over 18,500 of these 99,000 workers were left with an injury that permanently, if only partly, handicapped them for future work. Amputations of fingers, hands, arms and feet, and loss of use of these members or of eyesight, in whole or in part, make up the bulk of the permanent partial disabilities."

Those of us who have two arms, two legs, two eyes and a full complement of fingers and thumbs might well pause a moment to think something of this part of the high cost of comfort.

Who bears the burden of industrial accidents? The question is not a simple one to answer. In notoriously dangerous occupations the risk involved sometimes is reflected in high wages and sometimes in group insurance provided by the employers. In such cases the employer pays part of the cost of industrial accidents and then tries to pass it on to the consumers of his products. Whether or not the employer is required to pay wages reflecting in a measure the industrial risks of his workers depends, in part, upon the organized strength of the workers. And whether, if forced to pay wages reflecting industrial risks, the employer is able to pass the added costs on to consumers, is partly dependent upon the employer's competitive strength in disposing of his products.

When a worker is injured he may have a claim for damages resulting from the employer's negligence. In such a case, he may sue the employer and endeavor to convince a jury that the employer is to blame for his injuries. To do this, the injured worker must employ a lawyer and brave the hazards of the law, generally in opposition to highly skilled pleaders hired by the year by powerful corporations.

It is often argued that the provision of compensation for industrial accidents, either through wage payments or individual damage suits, is a very haphazard arrangement, likely to find those most in need of protection least able to get it. Widespread acceptance of this position has in recent years led to the enactment of legislation designed to provide more adequate compensation for industrial accidents. The nature of this legislation and the reasons for its adoption are discussed in the following article.

COMPENSATION FOR ACCIDENTS ¹⁸*by Thomas W. Holland*

AT LAW there are two methods whereby an employee may secure compensation for injuries suffered in the course of his employment. The common law, or traditional method, is a suit for damages against the employer. The statutory, or modern method, is through the operation of a workmen's compensation act.

The damage suit is the ordinary method of settling cases of personal injury, and, at first glance, it might seem that an employee's claim for damages could be satisfactorily settled by an appeal to the courts. But an employee who brings suit against his employer for damages is under a disadvantage that the ordinary plaintiff does not have to meet. This disadvantage arises out of the fact that as the law of master and servant grew up, the master was conceded certain defenses to offset the claims of his servants who had been injured in the course of their employment.

In general, an employer is under a duty to use ordinary care to provide for the safety of those in his employment. He must provide a safe place to work, safe tools, and a sufficient number of fellow employees to assure safety. He must instruct new employees, and warn them of dangers not readily discoverable. But should the employer negligently fail in his duty to provide for the safety of his employees, he is able to escape liability for his negligence by setting up one of the following defenses:

- (a) The defense of contributory negligence.
An act of negligence on the part of the injured employee which contributes to his injury will relieve the employer of liability despite the fact that the injury has been caused by the negligent act of the employer.
- (b) The defense of assumption of risk.
The employee is held to have assumed all the ordinary risks of employment, and the extraordinary risks, of which he is aware. Under this defense the employer could negligently fail to provide safe working conditions, but would not be liable for an injury to an employee if the employee knew of the unsafe condition and continued to work under it.
- (c) The fellow servant rule.
If the employee is injured by the act of a fellow employee, the employer is not liable.

These defenses make it exceedingly difficult for a worker to secure compensation by means of a law suit. At common law there are further disadvantages to the worker, for should he secure judgment in his favor he is under the necessity of paying attorney's fees, and he must also wait for the slow procedure of the courts to run its course. In North

¹⁸ From an unpublished manuscript.

Carolina it has been found that 23 personal injury suits brought by employees required an average of 26 months each before a final decision was handed down. One such case required 6 years and 11 months before final judgment was reached.

The injustice of the common law to a worker who seeks to recover for his injuries has been recognized; and during the last fifteen years in the United States damage suits have been almost completely supplanted by workmen's compensation acts.

Workmen's compensation recognizes that the working class is subject to the greatest hazards in modern life and yet is least equipped to stand the expenses and loss of earnings that result from industrial accidents. This new form of compensation is based upon the theory that the cost of industrial accidents should be borne by the consumer, because the payment of workers for their injuries is as much a cost of production as payment for materials destroyed in the process of manufacturing. While society as a whole bears the cost of workmen's compensation, there is a distinct social gain through the elimination of poverty and the suffering that under the old common law rules must be borne solely by the injured worker and his family.

The first workmen's compensation act was adopted in Germany in 1884, and at present fifty countries have adopted the principle. In the United States the first state to replace the common law rules of employer's liability with a workmen's compensation act was New York in 1910. Since that time all but five states have followed suit.

The compensation acts in the various states of the union vary widely in the amount of compensation granted, but they are all similar in form. The basic principle of a compensation act is the automatic payment of specific benefits to an employee who has been injured in any manner in the course of his employment.

A summary of the New York workmen's compensation act follows:

EMPLOYMENT COVERED.—Compulsory as to enumerated hazardous employments, and all other employments having four or more workmen.

Farm and domestic service excluded. Voluntary as to other employments.

INJURIES COVERED.—Accidental personal injuries arising out of and in the course of employment, unless due to willful intention to injure self or another, or intoxication. Designated occupational diseases included.

WAITING TIME BEFORE BENEFITS ARE ALLOWED.—One week. None if disability continues for more than seven weeks.

COMPENSATION BENEFITS.—*Death:* Burial expenses, widow or dependent widower, 30 per cent of wages until death or remarriage; 10 per cent additional for each child; total, not over 66⅔ per cent of the wages; maximum basic wage, \$150 a month.

Total Disability: Total permanent disability receives 66⅔ per cent of wages for life; maximum \$20 a week, minimum \$8. Temporary total disability receives 66⅔ per cent of wages during disability, with the

same maximum and minimum weekly payments as above, but total payments not to be over \$3500.

Partial Disability: 66⅔ per cent of wage loss; total not over \$3500 if temporary. Specified injuries, 66⅔ per cent of wages for fixed periods, plus fixed healing time in certain cases; maximum, \$20 a week, minimum \$8.

MEDICAL AID.—Such medical, surgical, and hospital service as nature of injury requires. Charges limited to prevailing rates.

ADMINISTRATION.—The act administered by an industrial commission.

INSURANCE.—Employers must insure in state fund, or private companies, or provide self-insurance.

Another risk wage earners must face is that of unemployment during "hard times." Some trade unions in Europe began as early as the middle of the nineteenth century to pay regular allowances to members out of work. However, such unemployment relief was limited to a very few, was small in amount and quite uncertain, since it depended on the financial situation of the unions, not always too good in times of depression. In 1911 the government of Great Britain was persuaded to enact a law providing for compulsory insurance in the building, engineering, and shipbuilding industries. By 1920 other industries were included and the number insured was increased to nearly twelve millions. Whether similar action will be taken in this country in the future is a matter of speculation. At present unemployment insurance is still in an early experimental stage, as indicated below.

UNEMPLOYMENT INSURANCE IN THE UNITED STATES ¹⁹

by James A. Corcoran

UNEMPLOYMENT insurance in this country has come about through private initiative rather than Government subsidy. True, we have only made a very small beginning, but the various plans or experiments now under way are being carefully watched and are tending to focus attention on the full extent of unemployment and on the real problem of regularization of employment. Nothing that has been attempted in this country along the line of alleviating or remedying unemployment has progressed far enough to claim for it success even as a particular venture, much less as showing a real plan that may be applied under varying industrial conditions.

The so-called unemployment insurance plans in this country are of two kinds. A few are undertaken by individual firms and limited to their own

¹⁹ Adapted from *Bureau of Labor Statistics Bulletin No. 414*, U. S. Department of Labor, 1925.

employees, generally unorganized, under various restrictive conditions, and usually do not stand distinctly alone as a plan but are part of a general personnel policy, subject to change at the option of the employer. They cover relatively few workers and tackle the real problem only in an incidental way. These are hopeful signs, however, denoting progressive management's recognition of the need of some method of assuring to the worker some income during the entire period in which he must care for his family and meet the necessary current expenditures. Their success is to be hoped for, if for nothing else than to encourage other employers to recognize the need of some arrangement for steadying the worker's income. Even the growth of such individual plans, however, will be a matter of a long time, extending over many years, and therefore we cannot expect much real accomplishment from such a method of attacking the problem.

The second method is for an entire industry in a given locality to be covered by the plan in force. To date, this has been done only in organized industries, but there is no practical reason why it could not also be attempted and executed in groups that are not collectively dealing with their employees through a labor union. Of course, when jointly carried out, it has a firmer foundation and greater certainty of enforcement.

Two major instances of plans embracing voluntary organization of such industry funds are now in operation—one in the cloak, suit, and skirt industry of New York City and the other in the men's clothing industry of Chicago. They are the leading experiments, and much of the future course of unemployment insurance development will be guided by the experience and success of these plans.

Unemployment insurance by industries seems to point the only logical way by which we can hope to make any progress at this time. We must look to these private plans for the accumulation of the necessary data to provide an actuarial basis for any future governmental action that may be contemplated. Our previous experience with other types of social legislation, such as compensation, child welfare, etc., indicates that this would be the normal procedure. All these other activities have been carried along to a certain point under private auspices and then taken up generally after their practicality has been established.

When a specific industry undertakes unemployment insurance, it must face and decide many important questions. How shall the money be raised—through joint contributions or entirely from the employers? What shall be the method of collection and how shall payment by delinquents be enforced? Who shall be eligible and under what circumstances? Shall benefits be uniform, irrespective of wages, family state, or sex? How much approximately is likely to be the yield, and what will be a favorable margin of safety in regulating the initial outgo through benefits? Shall the disbursement payments be made through the union? Shall men be helped to any employment available through institution of a central labor or employment exchange? How shall overtime and underemployment be treated? Shall a financial incentive be provided for firms to furnish em-

ployment beyond the normal of the trade? Is a general market fund to be drawn on by all more practicable than limiting workers to benefits regulated by the amount contributed by themselves and the particular firm by which they are employed?

Generally speaking, the employer engaged in private enterprise has as his main objective the making of profits. In order to accomplish that he must hire workers at the lowest possible wage, and must sell his products at the highest possible price. In the United States many "captains of industry" have held the view that the lowest possible wage is the lowest amount of money at which people can be held on a job. That view, while still widely held, is passing. There is increasing recognition of the fact that, from the employer's point of view, the actual money wage the worker receives is less important than what he accomplishes in return for that wage; in other words, that cheap labor, in terms of labor output, may really be very expensive labor.

There is also increasing recognition on the part of employers that success in a manufacturing enterprise is not determined solely by success in turning out products at the lowest possible cost. There remains the problem of selling the products. And among the possible purchasers must be included the large army of wage workers. If they are to be able to buy the products which our increasingly efficient producing machine is able to turn out they must have some appreciation of these products, and the ability to purchase them. This line of reasoning has led certain employers to recognize as an essential of successful business enterprise a body of wage workers capable of absorbing a larger share of industrial products,—an essential which wage workers are pleased to recognize without argument. The number of employers who take this view is still relatively limited, but because of the fact that they are not the least successful of those engaged in industrial enterprise in the United States, their opinion is significant. There follow two brief selections which outline the reasoning which leads to the conclusion that the payment of high wages may be good business and social policy.

HIGH WAGES—A BUSINESS ESSENTIAL²⁰

by James J. Davis

EXPERIENCE has proved, even to the most casual observer, the fallacy of much of the bad economic thinking of the past.

²⁰ From the *Annual Report of the Secretary of Labor for the fiscal year ending June 30, 1927*, Government Printing Office, Washington, D. C., page 139.

The low-wage fallacy is the worst of all. A dullard must see the folly of killing the purchasing power of the greatest buyer, the worker, in the market at home which provides us with all but a fraction of our national wealth and prosperity.

No matter on what plea or excuse, reduction of wages is bad business and worse economics, whether applied in the broadest social sense or to a given industry.

No matter how large the population, we know that no low-wage country is prosperous, and we also have it proved in figures and facts that no low-wage industry in the United States is prosperous today. No low-wage section of the country today is as prosperous as are the sections where higher wages prevail.

The employer, therefore, who reduces wages, whether from a selfish motive or because he thinks it good business, is not a good business man and is hurting himself. He may for a time succeed in paying a wage below the cost of living, but he is only throwing on the community at large the expense of paying, in the form of unpaid grocery and clothing bills, the wages which he himself should pay.

To be very frank, he is stealing from the public. This applies to any industry as a whole, as it does to any individual employer.

The time has passed when any industry or any employer who seeks to break down wage scales will be looked upon by the community as shrewd or clever in business. Such employer is not clever in business but a parasite on the community, and public opinion will eventually force him to pay a decent wage or get out of business.

HIGH WAGES—A SOCIAL NECESSITY ²¹

by Owen D. Young

SLOWLY we are learning that low wages for labor do not necessarily mean high profits for capital. We are learning that an increasing wage level is wholly consistent with a diminishing commodity price level. We are learning that productivity of labor is not measured alone by the hours of work, nor even by the test of physical fatigue in a particular job. What we need to deal with are not the limits to which men may go without physical exhaustion, but the limits within which they may work with zest and spirit and pride of accomplishment. When zest departs, labor becomes slavery. Zest is partly a matter of physical condition, but it is also largely influenced by mental reactions. These are common to all of us in every position. Are we doing well with our lives? Are we providing for our families—not merely clothes and food and shelter while we are working, but an insurance of them when our working time is ended by age, disability or death? Are we providing more cultural opportunities for ourselves and our children? In a word, are we free men? Here in

²¹ Adapted from an address delivered at the dedication of the new buildings constructed under the George F. Baker Foundation for the Harvard Graduate School of Business Administration, June 4, 1927.

America we have raised the standard of political equality. Shall we be able to add to that full equality in economic opportunity? No man is wholly free until he is both politically and economically free. No man with an uneconomic and failing business is free. He is unable to meet his obligations to his family, to society, and to himself. No man is free who can provide only for physical needs. He must also be in a position to take advantage of cultural opportunities. Business, as the process of coördinating men's capital and effort in all fields of activity, will not have accomplished its full service until it shall have provided the opportunity for all men to be economically free. I have referred elsewhere to the cultural wage. I repeat it here as an appropriate term with which to measure the right earnings of every member of a sound society competent and willing to work.

The income received by wage workers is not solely determined by the amount in pay envelopes. Opportunities for recreation and pleasant surroundings at home as well as on the job are also factors. As a matter of business policy, Henry Ford would give wage workers more leisure. He announced such a policy at a time when orders for his old model cars were relatively slack, and he was shortly to close his plants to perfect new models. This has led some people to suggest that there was business necessity of more than one variety in his adoption of the five-day week. That, however, subtracts little from the merits of his argument in favor of such a program. His reasons for favoring the five-day week are set forth in an interview quoted below. Following that is a statement by the late Judge Elbert Gary, for many years Chairman of the Board of Directors of the United States Steel Corporation, which suggests that the idea of a five-day week for wage workers is both impractical and immoral.

THE VIRTUES OF THE FIVE-DAY WEEK²²

by Henry Ford

In an interview with Samuel Crowther

THE country is ready for the five-day week. It is bound to come through all industry. In adopting it ourselves, we are putting it into effect in about fifty industries, for we are coal miners, iron miners, lumbermen, and so on. The short week is bound to come because without it the country will not be able to absorb its production and stay prosperous.

The harder we crowd business for time, the more efficient it becomes. The more well-paid leisure workmen get, the greater become their wants. These wants soon become needs. Well-managed business pays high wages

²² Adapted from an article in the Atlanta, Ga., *Sunday American*, Sept. 26, 1926.

and sells at low prices. Its workmen have the leisure to enjoy life and the wherewithal with which to finance that enjoyment.

The industry of this country could not long exist if factories generally went back to the ten-hour day, because the people would not have the leisure, the desire or the means to consume the goods produced. For instance, a workman would have little use for an automobile if he had to be in the shops from dawn until dusk. And that would react in countless directions, for the automobile, by enabling people to get about quickly and easily, gives them a chance to find out what is going on in the world—which leads them to a larger life that requires more food, more and better goods, more books, more music—more happiness. The benefits of travel are not confined to expensive foreign trips. There is more to learn in this country than abroad.

Just as the eight-hour day opened our way to prosperity in America, so the five-day week will open our way to a still greater prosperity.

It is high time to rid ourselves of the notion that leisure for workmen is either "lost time" or a class privilege.

Old-fashioned employers used to object to the number of holidays in this country. They said that people only abused leisure and would be better off without so much of it.

Only lately a French professor accounted for the increased consumption of alcohol by pointing to the eight-hour day, which he denounced as a device which gives workingmen more time to drink.

It will be generally granted that if men are to drink their families into poverty and themselves into degeneracy, the less spare time they have to devote to it the better. But this does not hold for the United States. We are ready for leisure. Temperance or prohibition has made it possible for men and their families really to enjoy leisure. A day off is no longer a day drunk. And also a day off is not something so rare that it has to be celebrated.

This is not to say that leisure may not be dangerous. Everything that is good is also dangerous—when mishandled. When we put our five-dollar minimum wage for an eight-hour day into effect in 1913 we had to watch many of our men to see what use they made of their spare time and money. We found a few men taking on extra jobs—some worked the day shift with us and the night shift in another factory. Some of the men drank their extra pay. Others banked the surplus money and went on living just as they had lived before. But in a few years all adjusted themselves and our supervision was less needed.

It is not necessary to bring in sentiment at all in this question of leisure for workers. We can look at leisure as a cold business fact. Business is the exchange of goods. Goods are bought only as they meet needs. Needs are filled only as they are felt. They make themselves felt largely in leisure hours.

The people with a five-day week will consume more goods than the people with a six-day week. People who have more leisure must have more clothes. They must have a greater variety of food. They must have

more transportation facilities. This increased consumption will require greater production than we now have. Instead of business being slowed up because the people are "off work," it will be speeded up, because the people consume more in their leisure than in their working time. This will lead to more work. And this to more wages. The result of more leisure will be the exact opposite of what most people might suppose.

THE IMPRACTICAL FIVE-DAY WEEK ²³

by Judge Elbert H. Gary

I DON'T think the workers would favor the five-day week unless they should receive the same compensation for the five-day week that they now receive for six days; and that the employer can't afford to pay. The employer would have to carry the added expense to the purchaser and consumer and they wouldn't stand for it and ought not to be made to.

Most of the questions involving expenses are essentially between workers and the consuming public. The five-day week is impractical in the steel business, and I don't believe it is practical in any other business. Competition with European industry would be out of the question if American labor worked only five days, while they worked six days abroad. We couldn't stand up under it.

In times of great business activity the productive capacity of our industries would not meet the demands of the consuming public if they were operated only five days a week. The only way to meet this lack is by increasing plant capacity; but that would add millions of dollars to the expense, for the cost of construction is up and is going higher, and that additional expense would have to be carried by the consuming public. All the things that increase the cost of production increase the cost to the consumer, and that also works to the prejudice of the employee part of the general public not engaged in the particular industry concerned.

It is illogical to work only five days a week and get paid for six. Most people work six days, and it isn't fair for half of the community to work only five days and the other half six days.

The commandment says, "Six days shalt thou labor and do all thy work." The reason it didn't say seven days is that the seventh day is a day of rest and that's enough.

QUESTIONS

1. Draw up a budget which you think would provide a comfortable living for a family of five in your locality. Find out how much unskilled workers are paid per day. How easily do they "make both ends meet"?

²³ Adapted from a statement published in the *New York Times*, October 17, 1927.

2. Compare the advantages gained and lost by propertyless toilers through the elimination of slavery.
3. "The employer may own the tools of production, but the worker controls his labor and need give it only to those employers who make terms which are satisfactory to him." Do you agree? Explain.
4. In the *New Yorker*, a weekly magazine, there is the following statement: "We think the subway boys have plenty of grievance. They are paid, for a seven-day week, from \$29 for guards to \$48 for motormen. In one day of the life of a motorman there are 2,662 curves, stop signals, switch crossings, and potential rear-end collisions. This means that the motorman, with the safety of thousands of people in the palm of his hand, gets paid about a quarter of a cent per crisis. That sounds low." Do you think this statement suggests a satisfactory method of determining wages? Explain.
5. What controls the rate of wages at present? Are there ways of modifying that control? What are some of them?
6. How did it happen that 41 per cent of the workers engaged in the extraction of minerals in 1920 were organized, while at the same time only 3.8 per cent of those in domestic and personal service were banded together? Account, in so far as you can, for the other variations in the percentages of wage workers organized in the major divisions of industry.
7. "Those who need protection most—the unskilled—are the least able to organize to get it." Why?
8. Draw a chart showing how the American Federation of Labor is related to state and local federations, international unions and local unions.
9. "Trade unions only serve to keep ambitious men down to the level of mediocrity." Do you agree or disagree? What are your reasons?
10. Outline the advantages employers are likely to gain as a result of the negotiation of trade agreements.
11. "Strikes are indefensible, and in key industries such as those providing food, fuel, clothing, shelter, and transportation, should be outlawed by statute." Discuss.
12. "When men go on strike they reserve their labor energy, keep it and don't sell it. Surely it is illogical to say they lose what they keep." "Labor is perishable. Time lost can never be recovered." Which position do you think the more reasonable?
13. Discuss unemployment insurance as a device to reduce the severity of the business cycle.
14. Is Henry Ford's argument in favor of the five-day week universally adaptable? Could it be applied to the dairy industry? the cotton textile industry?

ASPIRATIONS FOR MORE INCOME: PROPERTY OWNERS AND BUSINESS MANAGERS

THIS chapter is designed to indicate some of the sources of income of property owners and business managers, their interest in maintaining or increasing their share of the available income, and some measures they employ in their endeavor to do this. It will include discussion of:

- (1) Forms of property and the nature of property rights.
- (2) Money income from property and management.
 - (a) Rent, interest, royalties, *et cetera*.
 - (b) Profits.
- (3) Efforts to maintain and increase the share of money income going to property owners and business managers by:
 - (a) Improving business and industrial methods.
 - (b) Encouraging economic individualism and free private enterprise.
 - (c) Opposing certain forms of taxation.

IN THEIR efforts to obtain more income, people who gain their livelihood by labor generally find themselves arrayed against those who obtain their income from managing or lending property. To be sure, the line-up of toilers versus business managers and property owners is neither universal nor at times clean cut. Before there can be any controversy over the division of income, some income must be available; consequently, all groups have a common interest in seeing that something is produced to sustain life. Also, certain individuals—farmers and grocery-store proprietors, for example—obtain their income from a combination of labor, management, and returns from the use of property. And lawyers and physicians, who obtain the bulk of their income as payment for labor, quite generally identify their interests with those of business managers and property owners rather than with those of wage workers. While a substantial array of exceptions can be noted, the fact remains that there is a central conflict over income division between those who depend for their living primarily upon the proceeds of their labor and those who live on incomes from property or the management of property.

At present, about two-thirds of the net "value product" of mines, factories, and land transportation is paid to manual and clerical employees, and one-third goes to owners and managers in the form

of rentals, royalties, interest, dividends, and salaries of officials. A larger share might be paid to wage earners. They are doing their best to see that this shall be done. On the other hand, a larger share might be paid to property owners and business managers. It is with the efforts of property owners and business managers to increase their share of the available income that this chapter will be chiefly concerned. In that connection there will be discussion of forms of property and property rights, income from property and business enterprise, and methods in general use to increase such incomes in opposition to the efforts of other groups.

Apart from efforts to advance their common interests, those who derive their income from property and business management are also bargaining to get as much as possible in trading with one another. Wherever there is competition between different enterprises there is a clash between the property owners and business managers for larger shares of income. The nature of this clash has been presented in some detail in the previous chapters discussing competition. Here the design is to indicate how property owners and business managers, in addition to competing in varying degrees with one another, co-operate to advance their common interests. To do this it is first essential to consider something of the nature of property and property rights.

PROPERTY AND PROPERTY RIGHTS

Writing his *Commentaries on the Laws of England* in 1774, William Blackstone remarked, "there is nothing which so generally strikes the imagination and engages the affection of mankind as the right of property." Although a century and a half old, his statement still holds true. There is still an almost universal interest in acquiring and holding property.

Since Blackstone wrote there have been striking changes in the forms of property and the character of property rights. A rapidly developing industrial civilization has brought into existence many new forms of property undreamed of a hundred and fifty years ago—oil pools five thousand feet below the surface of the earth, airplanes to scour the heavens, and radio devices to pierce the air with noises and pictures. The rise of a business organization to direct industrial activity, and the rapid changes in that organization, have also brought into being many sorts of intangible property which were still behind the veil of the future in Blackstone's day. Samples of these are street railway franchises and "good will" acquired from national advertising campaigns.

Of the various forms of property at present recognized by the government, some are of a type quickly wiped out by consumption or wastage. A dish of ice cream of which a small boy is sole owner soon disappears

down his throat or, most improbably, melts and becomes material no one cherishes. Bread, milk, meat, vegetables, passing through the channels of trade into the hands of consumers, are used rather promptly to sustain life, if not destroyed *en route* to sustain prices. Certain other forms of property in the hands of consumers or moving in that direction are not immediately used up, but provide a series of services for the owners over a period of time. Such are land, buildings, pleasure vehicles, pianos, rugs, radios, overcoats, and diamond rings. There is also property in the form of factory sites, machines, telegraph poles and freight cars, used in the process of fabricating and marketing various products. Ownership of property of this form is desired chiefly because of the money income it returns to the owner. This is also true of a very extensive array of intangible property such as stocks, bonds, bank accounts, patent rights, and trade marks.

The rights of property have also undergone many changes since Blackstone wrote. In defining the "right of property," he said that it was "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe." That was a sweeping definition. It meant that the owner could do with his property just exactly what he saw fit. Since that was written, legislative bodies have been continuously engaged in making rules to govern human conduct. The result is that in the United States at present the rights of property are greatly limited by regulation and prohibitions established by government. A man, for example, may own a still for manufacturing spirits, the house in which the still is lodged, and material for distilling. If he starts to exercise "sole and despotic dominion" over his property by setting his equipment in operation he runs the risk of discovering that his property rights are not "in total exclusion of any other individual in the universe." He may be interrupted by a prohibition agent. In the case of the national prohibition law—only one of hundreds of restrictive measures—the rights of certain classes of property have been limited through regulations imposed by the government.

In some cases modern restrictions upon property rights are general in scope. In other cases they apply only to certain classes of property. The rights of property devoted to railroad service in the United States, for example, can be limited by the government because courts hold that railroads are "affected with a public interest." Corporations controlling such roads must submit to regulation of their train schedules and the rates charged for passenger and freight service. Far from having "sole and despotic dominion" over their property, the owners generally must obtain permission from the government to discontinue operations even though they are operating at a loss. Some of the reasons for this have been suggested in a previous chapter on government-controlled monopoly.

In limiting the rights of property, legislative bodies in the United States presumably follow that somewhat vague standard, the public welfare. If a majority of the people give expression to the opinion that the unre-

stricted use of a particular kind of property is damaging to the community as a whole, the legislature may pass a law curbing the use of that property. If a court to which the law is referred for review finds that it is not in violation of written constitutions, the rights of property in such an instance may be limited. The courts are continually engaged in the process of weighing the rights of property, as fortified by state and federal constitutions, against the desires of the general public, as asserted in legislative enactments. The result is an endless stream of judicial decisions bearing on the rights of certain classes of property.

In view of the fact that new forms of property are constantly coming into existence and property rights are continually being modified, it is impossible to set down an exact statement of the present nature of property or property rights in anything short of an encyclopedia. About all that can be said with assurance is that property is that which the government, generally acting through the courts, acknowledges as such, and that property rights include the rights to exclude others, to sell or give away, to destroy or to use, subject to general restrictions laid down by the government, or special restrictions affecting particular classes of property.

. . .

Obviously, such rights as those just enumerated, even if subject to certain limitations, are much desired. In almost every community there is a keen contest to establish such rights as extensively as possible. In pioneer communities there is generally a rush to establish property rights in land. As communities become settled, similar rights are asserted not only to the physical things available—mines, factories, houses, clothes, food—but also to particular methods of doing things which give promise of income to those controlling them. The result is that in a fairly well-settled country such as the United States someone asserts property rights to virtually everything worth having at the moment or suspected of being worth owning in the future.

In the struggle for property which has characterized the entire history of this country some people have fared very well. Others have not. Some people own vast aggregates of property. Others find themselves sorely perplexed in their efforts to acquire title to enough property to keep themselves alive from one day to the next. Those having property in excess of their requirements for consumption generally desire not only to keep it but also to make it yield as large an income as possible. In order to do this they make use of their property in a variety of ways.

They may endow a university or establish a public swimming pool for the children of the poor, thus reaping an income in terms of satisfaction. They may use their property to engage in some form

of business enterprise or they may lend it to someone who is willing to pay for its use. Presumably, the major part of the income from engaging in business enterprise or loaning the use of property will be in the form of money, although some people receiving very large incomes from these sources assert that the money income is incidental to the pleasure they have in directing large affairs.

If the loan of property is made in the form of a piece of land, a house, or a factory building, the price paid for its use is generally called rent. In the case of money or credit the price paid is commonly known as interest. If permission is granted to use an exclusive patent, the price may be described as a royalty. In all cases, the owner agrees to let someone else use his property for a given length of time, provided that a stipulated payment is made and that the property, if in a permanent form, is returned intact at the end of the rental period.

For generations economists have tried to explain why interest and rent are paid, and economic literature is replete with theories advanced on the subject. None of these theories is outlined here because a discussion of them would, in substantial measure, duplicate our previous study of prices. Interest and rent are simply prices paid for the use of money and other forms of property over a period of time. An understanding of them depends upon a detailed price analysis.

If a man owns a million dollars, a building, a strip of land or other property which he wants to lend to someone else, he places it on the market. He may do that for any one of a hundred reasons. Perhaps he has so much property he cannot possibly spend it on himself. Or he may be anxious to increase his bank account in preparing for a comfortable old age. If there are people who wish to borrow his property, money, or anything else, they will make offers for it. They may want it for use in producing shoes, hats, automobiles, roads or education. They may want it for purposes of waging destructive wars or financing advertising campaigns aimed to raise prices. In any event, they compute roughly what they can afford to pay for the loan of the property, and frame offers accordingly. People having property to loan likewise decide on the terms for which they are willing to give others the use of it. There follows a process of trading which results in agreement on prices for the loan of the property, depending upon factors influencing supply and demand in the market.

In the case of the interest rate, a study of factors affecting the supply of money inevitably leads to inquiries concerning the gold reserves of banking institutions, the policy of the Federal Reserve system, the accumulation of individual and corporate savings over

long periods, the degree and type of competition among lenders. A study of competition leads into a review of the organization of the banking system and into consideration of usury and other laws. Similarly, on the demand side the extent of competition would be just as important as the amount of business and industrial activity, stock and commodity speculation, and government financing. A study of interest actually paid discloses immediately that there are many different rates of interest—the call loan rate, the commercial bank customers' rate, the Iowa mortgage loan rate, the short-time government borrowing rate, the bankers' acceptance rate—each dependent upon a particular set of conditions. The analysis of each of these sets of conditions is a price problem not differing in broad outline from that presented by any other problem of price.

If not disposed to lend property in excess of their own immediate requirements, the owners of such property may use it themselves to engage in business enterprise. They may do this in many ways. Being advised that a power company plans to build a dam at a particular site, they may use their property, after converting it into money, to buy a part of the site in the hope that they can exact a high price for it when the company starts to carry out its project. They may buy common stock in an industrial corporation which they think has good prospects, or they may finance an inventor who thinks he has a workable plan to propel automobiles by converting air into power. Or again, they may buy an entire plant and equipment of some company and set about managing it. Or, as has been known to happen, they may use their property to corrupt public officials, in securing a valuable lease of government oil lands, or an exclusive street railway franchise.

The diversity of ways in which property owners can engage in business enterprise is almost unlimited. The development of the corporation has contributed much to making this so. Once the typical business enterprise was one in which the owner managed his property directly and ran the risks of gain or loss dependent upon his skill and luck. Now we have corporate enterprises in which the owners, scattered all over the country, have varying legal shares in the management. The owner of one share of common stock in the United States Steel Company who happens to be located in China is technically one of the business managers of that concern. Practically he is a person to whom the company, managed by people he has probably never seen, is obligated for a proportionate share of its profits if there should be any. For any voice he has in the management of the concern, he might just as well have lent the money he paid for his share of stock (assuming that his share is not one of those which the pro-

moters of the company presented to themselves), instead of technically becoming a participant in the management. His position differs from that of the bondholders from whom the company has borrowed money only to the extent that his chances of large income from his share and his risk of receiving no income are presumed to be greater.

In view of the fact that there are so many types of business enterprise and so many ways in which property owners can participate in it, no simple generalization can be made concerning the manner in which property owners derive income from engaging in enterprise. It may be by directing the use of property in such forms as land, buildings, and machines to aid in the manufacture of goods to be sold to consumers. It may be exacting a toll for the use of a patent monopoly, or the privileges of a special franchise obtained by manipulating legislators. Again, it may be simply by being in the right place at the right time; happening to hold a strip of land in the path of the late rush of the realtors to Florida, for example.

All of these and countless other gains from what is tagged as business enterprise fall under the general classification of profits, as distinguished from rent and interest, which are labels generally used to describe the income received from loaning property to other people. What is the justification for extracting a substantial share of the total available income in the form of profits? The recipients and their spokesmen generally assert that profits represent a reward for risking and managing property as well as a payment for the use of it. The writer of the following article, whose definition of profits is somewhat more restricted than that used in much business conversation, outlines the "risk theory of profits," describes fluctuations in profits and suggests some of the uses to which profits are put. A subsequent article challenges the idea that profits are a reward for taking risks.

PROFITS ¹

by David Friday

THERE is no understanding the present-day industrial and commercial world without a knowledge of the subject of profits. The reason is that modern business is carried on for profits, and finds in them its motive and its chief end. If businesses are successful it is because they are profitable. Business failures result from inability to make profits. No matter how excellent the service rendered by an enterprise, no matter how useful the new product it develops and markets, unless it can be carried through at a profit the business cannot live.

¹ Adapted from an unpublished manuscript, printed with the author's permission.

The problems with which we shall concern ourselves in connection with the study of profits are: the reason for the existence of profits; the facts concerning the size of profits, and concerning their variations; the causes and effects of the fluctuations in business profits; and the uses to which those profits are put.

Before entering upon a discussion of these technical problems, we must define what we mean by profits. The word profits as it is here used is intended to cover the excess of the price of the product, whether it consists of goods or of service rendered, over the cost of production. In the cost of production is included not only the cost of labor and materials, but rent and interest paid, and also taxes other than those upon earnings or profits. For the purpose of arriving at profits which are available for distribution to the stockholder in dividends, these latter taxes must also be deducted.

The first question which arises in the discussion of profits is why profits exist at all, and especially why the rate of profits is ordinarily in excess of the going rate of interest. The answer to the second question is that the one who risks his capital in business undergoes a sacrifice by undertaking a risk which the mere lender of capital does not have to bear. There is, of course, in all loans for industrial and commercial purposes an element of risk. The borrower may not be able to repay the principal and interest of his loan. But that risk is different in degree from the risk to which the borrower's own capital is subject. If the enterprise suffers loss, the capital which the owner has contributed is wiped out first, and only after his share of the enterprise has been consumed does the borrower stand to suffer loss. In the case of national banks and of most state banks, the stockholder is liable for twice the capital represented by the par value of his stock. One of the chief functions of those who put capital into enterprise in the hope of making profits is to bear this first risk of loss. Since the undertaking of business involves this risk, and since people shrink from assuming risk, profits must naturally exceed the rate of interest. The preceding paragraph embodies what is commonly called the risk theory of profits.

The statement that profits, in the narrow sense of an excess over cost of production and over the ordinary contract rate of interest, must be paid because of the risk of business calls for some explanation. The term risk as here used does not include all the risks of business. Some of these are so regular in their occurrence and so predictable that allowance is made for their loss in the cost of production. Sometimes this is done by insurance, as in the case of loss by fire or theft, and sometimes by setting aside as a reserve a portion of the gross revenues received, as in the case of bad debts. All such risks merely increase the cost of production. But there are other risks which are not predictable with any degree of certainty except by a few people of rare judgment and skill in management. Those are the risks which are apt to lead to financial extinction through a wiping out of the capital employed in the business. Business

is not yet an exact science. If its future course were as predictable as the movement of the planets, risk would disappear. In that event profits would tend to coincide with the rate of interest, except in cases where an exceptional manager succeeded in reducing costs below the ordinary and yet failed to receive a salary which represented the manager's true worth to the business concern. Until we have a science of business so perfect as this, industry will be subject to unforeseen losses, and profits will exist.

The risk theory of profits must not be understood as asserting that the rate of profit is proportional to risk and is greater in some periods than in others because of greater risk. An illustration of this point is found in the profits of national banks over the last twenty years. The banking industry has never been subject to so few failures and losses as during this period. Yet the profits for the past twenty years averaged almost ten per cent on capital and surplus as against 6.5 per cent during the decade of the '90's, and 8.2 per cent during the '80's. There were heavy losses during the '90's, accompanied by a low rate of profits; while the period of slight losses since 1900 has witnessed a high rate of profits. What is true of banks in this respect is true of other industries as well. While there would be no profit if industry were free from unpredictable risk, the variations in profit from year to year and even from decade to decade depend upon other factors than variations in risk. What these factors are will be discussed in a later portion of this article, which will deal with the causes of fluctuations in business profits.

Neither must the risk theory of profits be understood as asserting that all the capital invested in risky industries taken together earns a higher rate of profit than the combined capital of a safer industry. It is generally recognized that the rate of profits in an industry like gold mining or prospecting for oil is probably very low for the industry as a whole. But the earnings of those who are successful will be larger than those of the successful concerns in the safer industry.

Referring to the size and growth of profits, it is safe to estimate that in 1900 the profits of all the corporations in the United States were not much over two and a half billion dollars. Money profits have tripled during the last twenty years. This is true, however, only when we consider all corporate profits. If we examine specific industries the results are different. Manufacturing profits increased much more rapidly than did the profits of railroads and public utilities. The former increased by more than twenty-five per cent. From 1913 to 1917 industrial profits increased 180 per cent, while railroad and public utility profits increased only 30 per cent. The profits of national banks grew from 70 million dollars in 1900 to 161 million dollars in 1913. In 1920 they were 282 million dollars. They have, therefore, increased somewhat more rapidly than general profits, but less rapidly than manufacturing profits. It is needless to present further evidence of the large growth of absolute profits.

More important than the question of absolute profits is that of the rate of profits. Over considerable periods of time the rate of profits for all industry is quite certain to be well above the rate of interest, and for a period of rapid growth and rising prices such as we have had in the past twenty years it is almost twice the rate paid on borrowed capital. There are, however, important fluctuations from year to year, even in banking. The highest and lowest percentages earned on capital and surplus by all national banks in the United States taken as a whole were as follows for each decade in the last fifty years:

Decade	Highest (Per Cent)	Lowest (Per Cent)
1870-1879.....	10.9	5.1
1880-1889.....	9.5	6.7
1890-1899.....	8.9	5.0
1900-1909.....	10.5	8.2
1910-1919.....	12.11	7.08
1920-1924.....	12.79	7.79

In industries like manufacturing, the variations in earnings from one year to another are somewhat wider than in banking. When we examine the individual establishments, however, whether in manufacturing or in banking, we find a remarkable degree of variation from establishment to establishment within the same year. Thus, for fifteen shoe companies examined by the Federal Trade Commission, two companies have profits in the year 1914 of 61 and 53 per cent respectively, and two others out of the fifteen have losses of 6.8 and 4.7 per cent. Four companies earned more than 20 per cent, two others earned less than 5 per cent. In the year 1915 two companies made 53 and 50 per cent respectively; four companies suffered a loss; two made less than 5 per cent. The remainder ranged from 9 per cent to 42 per cent.

The problem of explaining fluctuations in business profits is more difficult than that of explaining variations in interest, rent, or wages. Interest is the price paid for the use of capital; rent, the price paid for the use of land; and wages, the price paid for labor. The problem of explaining changes in any one of these three factors lies, therefore, within the field of prices.

But the problem of profits cannot be comprehended within the limits of the price analysis. Profits are the difference between two sets of prices; the prices of the products sold, on the one hand, are the minuend, while the sum of the prices of labor, material, the use of capital and of land, and taxes, is the subtrahend. The difference between these two groups of prices constitutes profits. So profits are the resultant of the forces operating in a number of diverse markets, plus the considerations which govern taxes. Profits may be represented as follows:

<i>Gross revenue</i>	—consisting of prices of products or services
less	
<i>Operating expenses</i> —consisting of	{ prices of material used prices of labor—wages prices of capital—interest prices of land—rent and taxes
<i>Remainder</i>	= profits

The fluctuation of profits, then, must be explained by the factors operating in all of these markets. This is one of the reasons why the problem of profits is so complex and why it has been so generally neglected by economists. Profits are not market prices for business services; they are a resultant of all the forces operating, both in the market for products and in the market for the factors of production.

In addition to being influenced by price fluctuations, variations in profits are the result of fluctuations in the quantity of production which, in turn, depends upon fluctuations in demand. Many of the costs of production are fixed by contract or by the nature of the business. Taxes upon the real estate and plant employed are practically stationary. The same is true of long-term leases, of royalties in the case of mines, of interest on bonds or other forms of long-term indebtedness, of the depreciation on buildings and machinery. The same holds true pretty largely of the salaries of corporate officers and of managers and supervisors generally. A mere increase in demand without any change, either in the price of the product or in the prices of the materials or other factors employed, will result in a large increase in profits. The profits of 1915 and 1916 were in many lines due not so much to changes in prices of products or in the factors of production, as to an increase in output occasioned by increased demand. This is always the situation at the end of a period of business depression such as we had in 1914 and the early part of 1915. At such times profits rise without any material change in prices. The increase in demand for products and the increase in demand for materials and labor simply operate to bring forth a larger supply without producing any important effect upon price.

Usually these fluctuations in demand occur in long movements called business cycles. These are characterized by changes in demand over practically the whole field of industry. In boom times the demand increases and the plant is used to full capacity. The employment of capital becomes more intensive, overhead costs of depreciation, management, taxes, and interests do not rise in proportion to the increase in output, and profits grow correspondingly larger. Under the stimulus of such profits there is always a rapid expansion of new plant, partly because these earnings attract capital and partly because they make possible a large volume of new savings for investment. Then, when confidence is shaken and demand falls off, the old burden of interest charges, deprecia-

tion, managerial salaries and taxes does not decrease proportionately, and profits fall in consequence.

The chief cause of fluctuations in business profits, then, is to be found in the variations in demand and production which characterize the different phases of the business cycle. When both production and prices are increasing, profits are large; when production and prices are declining, profits decrease. When war strikes across the current of industrial life, profits are large both in the belligerent countries and in the neutrals with whom they continue their trade relations. Thus far our explanation has gone merely to the variations of general profits from one year to another. The variations of profits between different establishments will depend primarily upon differences in management. Fortuitous elements enter into the situation to some extent, but by far the largest factor is the skill and wisdom with which the enterprise is managed.

There are variations, too, between different geographical areas. In a business like farming the profit to some extent depends upon climatic conditions. These will determine the size of the crop and influence the relative prosperity of the different sections. An immense amount of work remains yet to be done before we develop a set of principles which will enable us to forecast the variations in profits of the different industries and the different sections of the country. But our present knowledge of the situation does show that their variations are to be explained, first by the variations in output due to cyclical fluctuations and to climatic conditions. These will determine the size of the crop and influence the cost per unit of output low, or the volume of sales of the individual establishment relatively high.

The most important effects of fluctuations in business profits are upon the accumulation of capital, upon the size of personal incomes, and upon the general state of business optimism and productive activity.

When we examine the uses to which profits are put we find that the corporate form of organization plays an important part in their disposition. More and more our main industries other than farming are being carried on by corporations. Now the profits of a corporation belong, immediately speaking, not to its stockholders, but to the legal entity which we call the corporation. The directors of the company decide whether they shall be paid out as dividends or whether they shall remain the property of the corporation. If the directors decide to retain them, they constitute an addition to surplus. In that event they are used either to add to the plant and machinery of the enterprise, to increase its inventories or its cash on hand, or to pay debts.

The lack of knowledge as to what actually becomes of corporate profits is to no small extent responsible for the dissatisfaction with our present order. The common opinion that these profits are squandered in luxurious living is quite contrary to the facts. In all periods of large profits a substantial amount thereof is retained as additional capital to be used in the enterprise. To the extent that this capital is expended in additional plant and machinery, in supplies, and goods in the process of

manufacture, it is a necessary element in the industrial situation which must be supplied by someone. If it were not supplied by the corporation out of its profits, it would have to come from the savings of laborers and others. It is impossible to work efficiently without machinery and materials. The corporation has assumed much of the burden of providing the capital needed for the expansion of modern industry. This has been especially true of manufacturing corporations during the last twenty years. In times of peace American corporations retained more than one-third of their profits as surplus. Since 1915 they have retained nearly one-half.

In recent years the government has insisted upon sharing in the profits of corporations, even before the stockholder. Most of our states have some form of special taxation, such as a tax on capital stock, upon these organizations. As a rule, this is small and absorbs only an insignificant part of the profit. To these simple taxes have been added, first, corporation income taxes and, next, taxes upon differential profits above a certain percentage. As a result the government has of late absorbed a large per cent of corporate earnings. In 1917 the taxes paid to state, local, and federal governments absorbed 26 per cent of the corporate net income and by 1918 the percentage had increased to 43 per cent. Since that they have been somewhat reduced, but all taxes, state, local, and federal, still continue to absorb from 20 to 25 per cent of corporate earnings. It is clear that any variation in profits must affect the revenues of government in an important manner.

In the preceding article profits were said to be largely a reward for risk taking. Another possible explanation is that they are in part the "wages of management" paid to people directing business enterprises. In an earlier day single individuals owned and operated enterprises which we would regard as very small. The owner often allowed himself no salary, so his profits included a return for his own labor and managerial services—perhaps also for work done by his wife and children. The services of management have not decreased with the growth of large-scale operations and corporate ownership, but tasks have become specialized so that now some men manage, others do manual or clerical work and still others own stock. The active managers are generally paid salaries which are reckoned as cost of the enterprise and not as profits. Managers may or may not own shares in the company. At the same time, many of those who own shares of stock exercise no control whatever, knowing little about the details of the business and not having sufficient interest to attend meetings—meetings at which information given to stockholders may be very meager. To say that the returns these people receive are "wages of management" strikes some people, including

the writer of the following article, as somewhat fantastic. He presents another view of profits which relates them neither to risk taking nor management. According to his idea, profits are something which certain people placed in a strategic position are able to "get away with."

PROFITS—SOMETHING FOR NOTHING? ²

by Harry F. Ward

THE traditional view of profit was expressed by a corporation manager when he said, "There has been a lot of bunk about helping the Haitians. I am not here to help the Haitians. I am here to make money out of Haiti for myself and my friends." The orthodox economists put the matter more delicately. Adam Smith points out that the essence of profit is the exchange of less labor for more labor. His present-day followers talk about maximum income with minimum effort as the desire of everybody, but how everybody can attain this goal by seeking to exchange less labor for more labor has never yet been explained or demonstrated. There are, of course, economists who conceive maximum income with minimum effort in social terms. That this is the desirable state for the community income and the community effort goes without saying. That this delectable situation can ever be reached by inciting individuals to get as much and give as little in return as possible is a hypothesis with few parallels for inconsistency in the history of human thought. In traditional economic theory, competition was relied on to resolve this inconsistency, but successful profit making generally involves the destruction of competition and usually manages to nullify all efforts to resuscitate it.

After some experience with industrialism, the economists wrote down profit as the wages of management. Obviously this is more than explanation; it is also attempted justification. The statement should have confined itself to the fact that profit was the sum remaining to the manager of a speculative enterprise after his actual outlay in costs was paid back, which might or might not be sufficient to pay him for his time. This is profit before the days of the corporation and cost accounting and this is what it still is for most small business men and farmers. But for the merchant or small manufacturer or farmer whom the business or agricultural college has taught to keep books properly, as for the corporation, profit does not exist until the wage of management, that is, the manager's labor income, has been paid. In the modern world, profit is net surplus after all costs of the enterprise have been met, including all possible charges for management, allowance for depreciation, and a reserve sufficient to carry through the slack season or the inevitable lean year.

A later refinement of the earlier view that profit is the wage of man-

² Adapted from "The Profit Motive," a pamphlet published by the League for Industrial Democracy, New York, 1924.

agement defines it as the measure of the margin between a successful enterprise and one that barely earns running expenses, and therefore acclaims it as the reward of ability, the return for superior management. But the differential may lie in some undue advantage, like monopoly control of a natural resource, of transportation or marketing facilities, or, possibly, in superior unscrupulousness in regard to the product. Where these factors are not present and the net gain is clearly derived from superior service to the community with no accompanying injury, it is still true that it is the product of a joint enterprise in which the wage earners and the consumer have actively participated and to which the community has been a contributing partner by the loan of its facilities. For profit is not merely net surplus above all necessary costs, it is net surplus appropriated by one of the participants in the enterprise who thereby gains an advantage over the others and to some degree obtains something for nothing.

The orthodox definition of profit adds to its claim that it is the reward of management the statement that it is also in part the reward of risk, the due return to those who in behalf of the community put their savings into needed new enterprises where they may take wings and fly away. This aspect of profit is naturally stressed now that the control of industry by finance and for finance has in so many areas removed the income of managers from the basis of speculative risk to the surer foundation of salary and fixed charge. It is, in effect, an attempt to validate the title of absentee ownership to the entire net surplus. As such, it ignores the risks of the other contributors to the enterprise, the risk of labor in unemployment, the risk of the community in entrusting its resources and facilities to this kind of ownership and management. That in many cases a net surplus would not exist had not a risk been taken is as obvious as that it would not exist without good management. But the risk is always a joint risk and therefore cannot be justification for turning over the entire net surplus as profit to only one of the risk bearers.

This emphasis upon the relation of profit to risk brings to light the fundamental fact of the speculative nature of profit. The opportunity for gain is a Siamese twin of the possibility of loss. But this relationship grows less binding with age. It is very much more true of new enterprises than of old ones. In this country many of the enterprises which most constantly accumulate a large net surplus carry very little risk. They have routine methods joined to adequate control of raw materials, transportation and markets for basic necessities like steel, oil, coal, meat, sugar. They face no real danger of loss short of a revolution. The same thing is true of the large gains accumulated by modern banking, particularly the commissions taken for floating loans and the inside profits of the members of interlocking financial organizations. Furthermore, many huge profits are made by transferring risk to the shoulders of others and turning the gambler's chance into a sure thing. Thus the watered stock is sold to the investor of real savings; unemployment is deliberately handed to the wage earners, while absentee ownership goes on

enjoying the accumulated surplus, and, by the grace of the State Department, the taxpayer foots the bill of collecting through the Navy the high returns on foreign investments in unstable countries.

It appears, then, that profit may or may not have something to do with superior management and socially necessary risk. As a matter of fact, the tendency in corporation organization is to transfer the reward of capital for risk to the same area of fixed charge where the wages of management have gone. In the higher finance, bonds and preferred stock represent actual investment of some sort and the interest rate varies with the risk involved. Common stock is usually pure water used as a bonus to "sweeten up" the investment proposition and attract capital. Generally it remains in the hands of the promoters, until by virtue of accumulated profits it can be sold for real money. (Steel common in which not one dollar was invested is now worth 95.) It claims, and usually receives, the entire net surplus after all fixed charges are paid. Once more it appears that a method for determining profits has become a method for appropriating from the common enterprise whatever can be taken by virtue of advantage of position. This was frankly stated by the head of the U. S. Steel Corporation in one of his addresses to the meeting of stockholders when he said that unless the investors could have the entire net surplus to do with as they will they would not put their money into the enterprise.

It appears, then, that Adam Smith was nearer the fact when he described profit as the exchange of less labor for more labor than are those who talk about it in terms of the reward of management or capital. The profits of a complicated industrial and financial system are at the bottom the same thing as the profit of the simpler transactions of the trading period. What happens when the net surplus of an enterprise is appropriated as profit by one participant or set of participants is that they have secured an advantage over the others and thereby obtained something for nothing. These are the essential elements in profit.

Regardless of whether or not a good theoretical case can be made for the existence of profits or other income from property, those who obtain an important share of their income from this source are anxious to have it continued and, if possible, increased. This gives them a common interest in opposition to those who derive their money incomes principally from their labor. There is not, to be sure, one big union of people depending upon property for their incomes opposing another group composed of laborers. In addition to the exceptions to such an alignment which have already been noted, it frequently happens that people deriving income from investments in the same corporation have widely varying interests. Most corporations issue both stocks and bonds to obtain the use of property. When such methods

of financing are used, the stockholders theoretically become proprietors of the enterprise and the bondholders loan property to it in return for a definite rental fee. The bondholders, entitled to only a fixed payment, may favor conservative management that will not involve risks of bankruptcy. The stockholders, on the contrary, may favor a speculative type of management on the ground that it is worth while to take big risks for the chance of big profits. Of course if large profits are obtained they will go to the stockholders and not to the bondholders. Other disputes between the various investors in a single business enterprise are frequent.

By skillfully utilizing corporate security issues financiers are sometimes able to obtain control of large amounts of property with little or no investment on their part and to manage this property so as to create very large property holdings for themselves. The nature of this process was indicated in the chapter devoted to the corporation. What is highly successful management for a group of investment bankers who control a corporation may be most disastrous to those who own most of the securities of the corporation. If the corporation has very large earnings, these may be dissipated by the management in speculative ventures instead of being paid out to the stockholders, or they may be used as the basis for added security issues, most of the proceeds of which are appropriated by the management. While such practice is not at all typical, it is common enough to suggest that even those who have investments in a single enterprise frequently have diverse aims.

The "get-rich-quick" schemes which are continually being devised in this country afford illustrations of a clash of interest between "the management" and investors much more striking than those just suggested. Promoters of such schemes rather regularly exchange "stock certificates," actually worth only what they will bring as old paper, for the bank deposits of investors bent upon making a "killing" quickly. Each year in the United States approximately one billion dollars is invested in "bogus" securities. Salesmen of such paper know how to talk glibly about great incomes from mines, oil wells, and real estate. By the time dividends fail to appear the promoters may be far away, although many of them have the nerve to come back with bigger promises than ever, perhaps offering to "buy" the old stock, which will be accepted as partial payment for the new issue, bound to yield high returns. Protests against this particular method of transferring property have been so great that "blue sky" laws have been adopted by most of the states in an effort to check the unscrupulous promoter. Such legislation has not been very successful in curbing promoters of fake investment schemes. One reason

is that the promoters are frequently engaged in "interstate commerce," subject only to the control of the federal government. There have been numerous proposals for federal legislation to check the sale of securities backed by little more than the blue sky, but none has been adopted.

A broad conflict of interest between people deriving income from property holdings is found in connection with the present governmental policy of a high protective tariff. Since the war, billions of dollars have been loaned to business enterprises in foreign countries. Some of these investors feel that they cannot be assured of repayment unless foreign enterprises are allowed a reasonable opportunity to sell their products in this country. Consequently this group, heard through spokesmen of the investment bankers in New York City, is willing to see a downward revision of the tariff. Other property holders, who have invested in enterprises doing business in the United States, are just as insistent that domestic enterprises should be spared the competition of foreign companies and that if the tariff is to be changed it should be revised upward.

In addition to the fact that people deriving income from property are not lined up one hundred per cent in a common cause, it is also true that under present conditions in the United States their interests are not reflected in a personnel distinct from that of other groups. When a wage worker who happens to have some property in the form of a savings account invests in the stock of the company for which he works, he acquires, to the extent of his investment, the interests of a property owner and business manager. In the unlikely event that his stock holdings come to yield as much income as his wages, he may find himself faced with the difficult decision as to whether he should endeavor to secure higher wages and thus possibly cut into the profits of his stock, or accept a wage cut in the hope of increasing his dividends. The number of wage workers who are ever faced with this dilemma is very small, and lest the question of sacrificing profits should bother wage workers in framing their demands for higher wages, leaders of organized labor frequently discourage programs of employee stock ownership. In spite of such efforts, however, the line of demarcation between property owners and wage workers is not always clear cut.

While diffusion of property in the United States is fairly general, it is far from uniform enough, however, to prevent a very real clash of interests between the group of those receiving incomes chiefly from large aggregates of property and that of those who obtain their livelihood largely as a result of their labor. This is illustrated by the well-worn phrase, "the conflict between capital and labor." Such

a phrase oversimplifies a complex situation; but on certain issues there is a more or less continuous struggle between those obtaining income by virtue of ownership and those dependent upon their labor. There is much to support the conclusion that "the population of these civilized countries now falls into two main classes: those who own wealth invested in large holdings and who thereby control the conditions of life for the rest; and those who do not own wealth in sufficiently large holdings, and whose conditions of life are therefore controlled by these others. It is a division, not between those who have something and those who have nothing, but between those who own wealth enough to make it count, and those who do not."³

Turning to a study of some of the efforts of the group controlling large aggregates of property to increase its share of the national money income, we shall first take note of some of the prevalent devices to increase profits. Business enterprises engaged in the production of goods and services to be sold to consumers can increase profits in a number of ways. They may lower unit costs, increase selling prices, or sell more goods at the same profit margin. The actual endeavors of persons engaged in business enterprise to achieve such results are extremely varied. In efforts to lower raw material costs some concerns economize on the material itself so that less is used for a given output. Others watch market trends and try to drive sharper bargains with sellers at the right moments. Still others have gone into the business of producing their own raw materials. If labor is a large element in the cost of producing a commodity, a manager may be able to lower the cost by reducing the money wages paid to workers for a given output, or by increasing their efficiency.

The ability of business managers to carry out a wage reduction program will depend, among other things, upon the general plenty or scarcity of labor, and the bargaining strength of the workers. In the last chapter we saw something of the efforts made by workers to increase their bargaining strength through organization. One of the objects of such organization, although almost never explicitly stated by labor leaders, is to create a monopoly control over the supply of labor. In order to defeat this purpose, business managers not infrequently refuse to countenance trade union organization of the workers in enterprises which they manage. In such an event they may conduct a militant anti-union campaign, refusing to hire workers affiliated with labor organizations; they may seek to offer a substitute for trade union organization in the form of a "company union" dominated by the management and disassociated from the organization

³ *The Vested Interests and the Common Man*, by Thorstein Veblen, B. W. Huebsch, Inc., N. Y., 1920, pages 160-161.

of workers in other firms and industries, or they may endeavor to dissuade their workers from organizing by making the jobs in their enterprises particularly desirable.

In striving to increase the efficiency of their workers, business managers may resort to various plans of scientific management. They may hire personnel experts to study the qualifications of applicants for jobs in an effort to place them so as to employ most usefully their peculiar talents. They may also hire people to make time and motion studies to reduce as far as may be the lost human motion on any particular task. As in the case of endeavors to reduce money wages, they may find their programs of scientific management balked if their workers are organized and have formidable bargaining strength. This is because the workers may insist they are human beings and consequently not to be subjected to the same cold-blooded manipulation as machines. In such a case, the ability of business managers to carry out the details of a production program, based upon the results of time and motion studies, may depend upon the result of a test of bargaining strength with their workers. In some cases business managers find that the efficiency of their workers is increased by the improvement of working conditions, and a scheme of production that takes careful account of such things as fatigue. By studying the time when workers on particular jobs begin to play out, and providing rest periods accordingly, or by adapting the equipment to human frailties it is frequently possible to increase the efficiency of labor. There are also countless schemes of piece rates and bonuses designed by business managers to increase the amount of labor obtained for a given money outlay.

Direct costs, such as those of raw materials and labor, generally vary more or less in proportion to the output. Overhead costs, on the other hand, continue without much change whether output is high or low. The total volume of overhead costs may be reduced to some extent by wise purchasing: placing orders for equipment when prices are low. Some securities outstanding may be "refunded" at periods when interest rates are low, as in 1927, thus reducing total interest payments. Usually, however, the chief method of seeking to cut overhead costs is that of reducing overhead cost per unit of product by increasing output. Wherever overhead costs make a large part of total costs per unit, the incentive to obtain larger markets is very great indeed, at least up to a point where the factory is being used to capacity. It may pay a particular firm to hire advertising and other sales experts to preserve and increase its market. Prices may be lowered in order to increase sales, in expectation of a decrease in cost

per unit from "spreading" the overhead that will more than compensate for the price cut.

In the efforts of business managers to increase profits by means of expanding sales, advertising plays a major part. Associated with it is a vast array of selling devices, ranging all the way from those used by the college student, who is advised to take a room at the minister's house in his summer vacation Bible-selling efforts, to those used by captains of finance in selling security issues running into hundreds of millions of dollars. Batteries of sales experts study the purchasing power of different communities and groups, seek to make people "washing-machine conscious," "radio conscious," or "spark-plug conscious," as the case may be, and then endeavor to batter down any "sales resistance" there may be to their products.

In endeavoring to increase the selling prices of their products, business managers have on occasion resorted to a wide variety of different devices. Writing one hundred and fifty years ago, in the infancy of our present business system, Adam Smith ventured the observation that "people of the same trade seldom meet together, even for merriment and diversion, but conversation ends in a conspiracy against the public or in some contrivance to raise prices."⁴ Of these contrivances perhaps the most prevalent have been arrangements to reduce competition. It is a by-word in the United States that "competition is the life of trade." It not infrequently happens, however, that strenuous competition, especially where the proportion of overhead costs is high, means the death of profits by the forcing down of prices. Consequently, business managers not infrequently seek to enter into arrangements designed to lessen the severity of competition. Some of these arrangements have been discussed in previous chapters devoted to forms of competition and monopoly. In seeking to increase the selling price of their products, the managers of certain types of business enterprises often indulge in a type of advertising which stresses the social esteem in which their products are held and the fact that possession of them is recognized as virtually essential for those who wish to be classed among "the best people." In such advertising it is frequently implied that the high price is a virtue because it insures a select coterie of possessors.

In carrying out their programs to maintain and increase profits, those in control of business enterprises frequently find their plans interfered with by organized groups which have opposing interests. There is, for example, an imposing body of organized wage workers who have as their objective the attainment of as much income as possible. The efforts of organized wage workers in this direction

⁴ *Wealth of Nations*, Book I, Chapter X, Par. 7.

frequently run counter to the efforts of those controlling business enterprise to obtain as large profits as possible. The state also frequently interferes with the profit-making plans of business managers. Laws are continually being proposed, and many of them are enacted, to curb profit-seeking activities on the theory that the unbridled pursuit of profits breeds certain abuses that are harmful to the general public.

Those exercising control over business enterprises generally object to restraints upon their freedom of action either by groups with opposing interests or by the state. This is not invariably so. In the case of the protective tariff those business managers who can benefit approve most heartily of government restraint upon freedom of private enterprise. Generally speaking, however, they contend that the only defensible system of carrying on economic activity is that in which the state concerns itself primarily with the protection of private property and the preservation of the peace, and leaves individuals to work out their economic salvation by the use of their individual property holdings and labor.

That those controlling large aggregates of property should hold such a view is not difficult to understand. So long as there is no monopoly of labor and the government protects their property, they are often in a strategic position compared to those who have only their labor upon which to depend for a livelihood. In order that they may be relatively free from interference by opposing groups and by the state, however, they are under the necessity of converting many people who have little or no property to the same opinion.

Property owners and their associates advance a wide variety of arguments in order to convince people of the virtues of economic individualism. One is that every individual has an equal opportunity to acquire property under the present system and that to enact legislative restrictions would interfere with equality of opportunity. Certain doubters suggest that under the prevailing laws regarding inheritance some people are born to the certainty of being millionaires while others, less fortunate in their choice of parents, are born in poverty. One rejoinder to such an argument is that though a person may be born in a hovel there is nothing to prevent him from rising to the pinnacle of economic success, for, as noted by James A. Emery, General Counsel of the National Manufacturers' Association, "American industry is not directed by inheritors of authority but by winners of power who capture their authority in continuous competition by the demonstration of superior merit in capacity and character." "Every American worker, like the soldiers of Napoleon," says Mr. Emery, "knows that he carries the baton of industrial marshalship

in his own knapsack. From small places to large, in the little enterprises and great, in nascent business and vast operations, unparalleled opportunity not only exists, but the movement from the ranks to the general staff is in plain progress before our eyes. Recently an inquisitive student of American life recounted that twenty-six of the twenty-seven presidents of our leading railroads began their career on the track, and of sixty of our first managing executives, fifty-five had occupied positions as humble as those from which Charles Schwab carved his career in steel.”⁵

An appeal to the facts does not yield conclusive results. Some investigators contend that most American fortunes have been built up by the thrift, honesty, sagacity and diligence of the men who have created them. Other investigators have found that most of these fortunes have been amassed primarily by means of “frauds, shams, and robberies.”⁶ Still others have concluded that the causes of the accumulation of great holdings of property in the hands of certain individuals are woven deeply into the whole range of operation of our economic system. These various points of view are represented in the following statements. The first presents the formula generally advanced by the possessors of large fortunes to guide those who would follow in their footsteps. The second relates the story of a successful American business man. The third statement suggests that the happenings on exchanges where speculators foregather are not to be overlooked in studying the causes of large fortunes and incomes. And the final statement relates the accumulation of large fortunes to nothing less complex than the whole structure and course of modern economic life.

RICHES—THE FRUIT OF “PHYSICAL, SPIRITUAL, AND MENTAL EFFORT”⁷

It is meet today, as it was 1,900 years ago, that the slothful, who use not their talents but bury them, should, through the operation of economic law, have taken from them even that which they have, further to enrich those who have most and who have demonstrated their capacity and willingness to exercise the godlike power of creating and producing, adding through physical, mental and spiritual effort to the wealth of the world. Wealth, so produced, is property, the title to which inheres in the producer, increasing his capacity further to produce and his corresponding responsibilities to his fellowman.

⁵ From “Freedom in Industrial Progress,” an address before the American Plan Association of Cleveland, January 25, 1927.

⁶ *History of Great American Fortunes*, by Gustavus Myers, copyright by the author, 1907, Volume III, page 390.

⁷ Adapted from *Principles of Business Conduct*, Chamber of Commerce of the United States.

RICHES—THE REWARD OF DILIGENCE AND COURAGE ⁸

by Mary Derieux

"ONE of the great things I've found out from living," he said, "is that you may have to take a lot of beatings along the way; but you never have to take a licking."

And these words symbolize the whole amazing drama of Bill Todd's life. From the day when he brought home a dollar and half from his first week's work and gave all but ten cents of it to his mother, to that other day when he bought the seven-million-dollar shipbuilding plant of which he had at one time been foreman at sixty dollars a week, Bill Todd has refused to take a licking from fate.

He is William H. Todd, now head of the great Todd Shipyards Corporation which, besides the famous Robins, Tebo and Clinton Plant in Brooklyn, includes plants in Hoboken, Mobile, New Orleans and Seattle. These yards employ a small army of workmen, and are valued at many millions of dollars.

"What started me working was wanting to make things a bit easier for my parents. I was fourteen then, hadn't quite finished my first year in high school. I wasn't one of these 'model boys' you hear about. But no amount of high spirits and boyish deviltry could overcome the influence of a father and mother like mine. There was a little church near us, the Scott Methodist church, and the pain in my father's feet, inflamed by standing on them all week, didn't keep him away from that church when Sunday came. In all those early days we didn't have any too much to eat in our house. The proudest moment of my life was when I was able to tell my father that he need not work any more.

"The first job I got when I left school was in the boiler shop at the Pusey and Jones shipyard in Wilmington at \$1.50 a week. From this I went to rivet boy at \$3, and so on along the line until, within a year's time, I got to be rated as a helper.

"About this time I thought I saw more money in the job of news butcher, so I quit the boiler shop and went to selling newspapers. For about a year and a half I made as high as \$50 or \$60 a week. But I couldn't see that it was a step to anything ahead. So I went back to the boiler shop at \$6 a week. I was starting right at the bottom of the ladder; but at least it was a ladder. I was selected to take charge of a crew of men to go to Trinidad, British West Indies, to erect two boats for the company. We worked so hard we got through and got home two months ahead of schedule. The company gave us each a bonus of two months' pay, but not one of us took advantage of that to lay off and have a vacation.

"It was several years after that when there appeared in the Wilmington papers an advertisement that an examination was to be held for master

⁸ Adapted from "What a Whale of a Difference an Incentive Makes," an article in *The American Magazine*, April, 1927.

shipbuilders for the Government. So I took the examinations, passed them and was given a position at the Brooklyn Navy Yard. Now it happened to be just at the time when the Government was trying to take the Navy Yards out of politics and put them under Civil Service. I had about 900 men in my department, and ninety per cent of them were through political influence. I started in by running afoul of all sorts of trouble when I tried to treat the men fairly. I stayed there about three years longer. However, with a change of administration, politics began to play its part again. I was reduced for three months. But I didn't accept it meekly. I put up a fight, appealed to the Secretary of the Navy for a hearing, was exonerated, and resigned next day.

"That was really the beginning of my career, because I went to work then, at a dollar a day less pay, for the Robins Drydock and Repair Company. In two years I was general superintendent, and in three years president. In about 1915 my first really big opportunity came along. Certain foreign interests wanting to buy a shipyard in America came to me for advice. I got an option for cash, and succeeded in putting the deal over, with the result that I found myself with more money than I had ever dreamed of having."

Six years ago Mr. Todd distributed \$1,000,000 in stocks among all the employees who had been with him for more than four years.

RICHES—THE REWARD OF LUCKY SPECULATION⁹

A MAD scramble for stocks lifted quoted values on the New York Stock Exchange yesterday a billion and a half and caused the second largest volume of trading in history. The sensational buying movement got under way under the leadership of General Motors common shares, which accounted for nearly one-sixth of the total trading and shattered all precedents by adding nearly \$164,000,000 to their market value.

A pronounced feature of the upswing was the participation by the public. The "little fellow" had his day in court with a vengeance, and buying in odd lots aggregated a very substantial total.

The rush for General Motors, in which fortunes were won and lost, followed the announcement that the Managers' Securities Company, owned by General Motors executives, had bought 200,000 common shares of the corporation in the last week for \$30,000,000 cash.

Rumors that a du Pont-Morgan group were about to take an additional 300,000 shares of General Motors out of the market caused covering by shorts.

Frenzied bidding for General Motors, which finished with a net gain of \$9.25 a share and for the sixth consecutive session gained a new top, was speeded by the announcement of a decline of \$26,000,000 in brokers' loans. Astounded by the purchase of General Motors by its executives and prospects of further accumulation by its banking sponsors as well as

⁹ From the *New York World*, March 10, 1928.

the soundness of the general technical structure of the market, "bears" rushed to cover.

William C. Durant, Arthur W. Cutten, Fisher Brothers and the du Ponts were mentioned in Wall Street yesterday as being the big winners in General Motors. Durant was credited with a clean-up of \$10,000,000, and Cutten about half that amount. Floor traders on the New York Stock Exchange were said to have incurred the biggest losses as a result of their bearishness on Motors.

Although the names of losers always are whispered, it was said in motor circles that a trader named after the builder of a popular automobile, whose shares jumped more than 4 points yesterday, dropped more than \$500,000 for the privilege of being short of Motors for a few days.

RICHES—A PRODUCT OF THE TIMES ¹⁰

by G. P. Watkins

LARGE fortunes or riches are not personally but impersonally and economically caused. The great fortunes of today are not to be explained by the great ability of their possessors. Human nature is not different from what it used to be. Inequalities of ability are not greater. But the economic world is different.

Since the Industrial Revolution there has been an enormous increase of productive wealth—an increase still proceeding at an accelerating rate. The rich under barbarous and oriental conditions are rich in consumers' goods. The feudal rich possess the revenues of political power. The modern rich are such because of the dominance of capital in production and distribution. The great precondition to the growth of modern great fortunes has been this growth of productive wealth.

Not merely in the amount of productive wealth, but also in the nature of productive instruments, the rich have been favored by technical and other developments of the last century. Large-scale production has become more and more dominant in all fields except agriculture. In order to engage in business on his own account under such conditions, a man must be or become rich. Or there has been the alternative that the enterprises be owned by great corporations dominated by, and managed for the benefit of, the few who are financiers or capitalists. The development of urban realty and of mines has been as unprecedented as has been the growth of manufactures and commerce in the large. Such economic changes have overshadowed all things.

A remarkable evolution of forms of ownership has accompanied the growth of capital. The organization of investment has reached such

¹⁰ Adapted from *The Growth of Large Fortunes*, a monograph published by the American Economic Association, November 1907, Third Series, Volume VIII, No. 4, pages 157-160.

a stage of differentiation that it is possible to meet the demands of those who want secure income without the responsibility of administering productive wealth. The appetite is, of course, large. The corporate, or stock-and-bond, form of organization is adapted to the needs of such investors. Hindrances to concentration of capital are thus removed. If there had been no corporate securities, doubtless inequality would have found other food. But probably not anything upon which it could have so flourished.

Natural inequalities have, by the growth of capital, been raised to a higher power. If the abilities of two men are as 1 to 2, the economic inequality may be as 1 to 4, or as 1 to 16. The several inequalities, of ability and means, are bound to reinforce each other with the result of increasing the degree of inequality, unless there is a tendency for one advantage to involve the absence of the other, or unless there is some natural check upon concentration. But the obstacles to concentration have been removed—in the first place, by the provision of more and more material for fortunes; also by making it possible to concentrate riches without increasing the involved care, and, finally, by securing to the possessor what is already accumulated, regardless of care or capacity. Keeping riches once gained is easier than ever before. If there is any correlation of ability and energy with initial means, reinforcement of inequality results. In cases where there is not this correlation, the rich by inheritance have a position which they can lose only by a destructive tendency amounting almost to madness. There is a cumulation of effects in the direction of economic inequality.

This is an age of rapid change. New technical developments and new economic institutions are ever in process. Under such circumstances, the rewards of the inventive, the persuasive, and the venturesome are great indeed. Now is the harvest time of the business man, the promoter, and the speculator. Natural resources are being developed as never before. Real estate values, with intervals of reaction, are being multiplied by the growth of population. Stocks are the sensitive spot where focus all the influences affecting credit and investments.

The development of abstract property, the dominance of large-scale production, and the multiplication of opportunities for gain from increases in the value of property are all characteristic and distinctive traits of modern economic society. The growth of great fortunes, though not inextricably bound up with the permanent elements of this situation, is a natural result, or even but another aspect, of these modern tendencies.

Some people who do not seriously question the workings of the competitive system are none the less envious of the very large incomes received by the possessors of large amounts of property. Lest this

envy should prompt interference with the economic system which makes such large aggregates of property possible, some of those who would discourage such interference declare that the recipients of the large incomes cannot possibly use them for purposes of consumption, but must of necessity devote them largely to further production of goods and services for division among all the people. They regard great property holdings as a sort of fund held in trust for the general public. Their view is presented in the following statement.

THE SLAVERY OF WEALTH ¹¹

by G. W. Dyer

THE fact that a few men are accumulating large quantities of wealth does not worry me a bit. I do not lose any sleep over it, because I know that under our theory of wealth all that they have really belongs to us. Your whole question of private property is largely a myth. It is a shrewd scheme by which society makes men work themselves to death under the hallucination that they are working for themselves, when they are really working for society.

But what is this country coming to when a few men own the "wealth"? It just means they are working like smoke for us. Why, a man after he accumulates a few thousand dollars has to quit working for himself. He cannot do it. Individual ownership of property, private capital, is in no sense inconsistent with social service. As a matter of fact, it is through private capital that we gain the greatest possible social service.

A man may be as mean as Satan, but he cannot use his wealth selfishly to save his life, under our system. If he has a million dollars, what is he going to do with it? He has got to dedicate it to society. A rich man cannot eat more than I can. I have eaten with them, and I know they cannot. No man can consume much wealth. If a man has got a million dollars, under our wonderful system of self-government, he has got to invest it in a factory or store or shop of some kind, and if he does that, he dedicates it to the service of the people. And if he is too lazy to do that, and he puts it in a bank, the bank sends it out the next day. He just cannot keep it out. So it does not worry me. And people all over this country are telling you, "Oh, the Government ought to own the railroads, and use them for the people." Why, we already own them. It is a long ways better than owning them. We let the people raise the money and run the railroads, and we just sit back and at the end of the year

¹¹ Adapted from "The Eagle and the Oyster," *Commerce and Finance*, February 24, 1926.

we call upon them to hand over whatever we say. What a wonderful system it is.

Property owners are not always successful in their attempts to convince the mass of people that the government ought to pursue a "hands off" policy. Laws regulating quality of products and working conditions are continually being urged and frequently adopted. Moreover, property owners frequently find occasion to protect their incomes against direct appropriation by the state through taxation.

In order to finance its activities the government needs money. To get money those officials charged with raising revenue, scout for available sources and then generally utilize them as extensively as is possible without courting the danger of being removed from office through the efforts of people adversely affected. Certain groups are always devising methods to tap incomes from property. Those who own property oppose this process vigorously.

One tax that has acquired some popularity in recent years is a tax upon large estates transferred at the time their owners die. While this presumably does not affect the future welfare of the owners of such estates, it interferes with family lines of succession in the holding of large amounts of property. Consequently it is generally opposed by the owners of large estates as an unreasonable interference with their freedom of action. The general nature of the argument advanced against such interference is outlined in the following article. The argument is applicable, in large measure, to the present income tax laws of the federal government and of many states. These laws call for graduated payments based upon the amount of property received in the form of current income.

A PLEA AGAINST INHERITANCE TAXATION¹²

*Mr. Kirby:*¹³ I want to give you an illustration of how the inheritance tax operates upon the hopes and ambitions and happiness and comfort of men of my type. And every man in Texas is of my type. Every man in Texas who has accumulated any property is in the same category with me. They have all earned it themselves. They have earned it by toil and by stinting themselves and saving, that they might provide for their wives and children and other loved ones. There is no man in the world for whom this committee has a greater contempt than the man who will

¹² Adapted from *Revenue Revision, 1927-28*, hearings before the Ways and Means Committee, House of Representatives, October 31 to November 10, 1927, Government Printing Office, Washington, D. C., pages 612-615.

¹³ John Henry Kirby of Houston, Texas.

not provide for his own household. In America, thank God, we have the guaranty in the Constitution that all a man can earn honestly and save is his to do with as he pleases. Never in the history of the world, in any country in the world, in any civilization in all history, was there a limitation placed upon the right of a man to do as he pleases with his own. Of course, he could not misuse it to the disadvantage of the public, but he could sell it, devise it, give it away, or do as he saw fit with it, in every country on earth.

Down in my country we have a thousand men like these, who have accumulated property by stinting and saving, that they might transmit it to their wives and children and grandchildren and other loved ones, that those who come after us may not endure the hardships that we have had to endure. I personally was born just before the beginning of the Civil War. At the end of that war my father, a Texas farmer, was broke, as everybody in the neighborhood was broke; and nine years after the war closed, when I was 14 years of age, I was plowing with an ox, because he still was too poor to buy another pony. But I had confidence in myself and in my country; I believed in her Constitution and in the Bill of Rights, and I believed in those eternal verities proclaimed in the Declaration of Independence.

I applied myself with diligence to earn and to save, and when I was 22 years old I persuaded a little woman in our country, a charming girl, the daughter of a poor widow, to share my fortunes with me. We had nothing. My mother, after we had boarded with a kinsman for four months, gave me a few little household things. Her mother had a few little household things, and we went to housekeeping. We stinted and saved and lived in little rented houses, and after we had passed thirty years of age we had accumulated a little property.

Now, we are approaching the evening of life. We are facing the sunset. We have one child left, and grandchildren, the oldest of which is 18 years of age. How can you find it in your heart, John Garner,¹⁴ to look upon my shroud and that little woman's shroud, and take a part of our savings in the name of justice, when there is so little warrant in the Constitution for doing so?

That is my plea to this committee. That is my plea to my Government. I am not here to condemn you; I am here to reason with you and to appeal to you to stand by the Constitution and treat us all, all the citizens of this country, with that exact justice that you want to treat them with. And you are not doing it.

It is very questionable whether under the Constitution you can levy this tax. I think you cannot, because an excise—and that is the only word in the Constitution under which you can justify it—is a tax upon a privilege or an occupation. It is not an occupation or a privilege to pass your property by descent or devise. It is a right.

Mr. Garner: Where do you get the right?

¹⁴ Congressman John Garner of Texas.

Mr. Kirby: We get it from the eternal God that made us.

Mr. Garner: I will have to differ with you with reference to the right. Of course, eternal rights are the rights of all. But your wife and your grandchildren and my wife and my grandchild only get the right of taking our property by virtue of statutes—statutes made by men, the men that you speak of, under the various constitutions of the States; and that is a privilege. And a privilege is what the excise tax is based upon, as I understand it.

Mr. Kirby: In all the history of the world, John, of which I have any record, the right of the children to take the property of parents has always existed.

Mr. Garner: I beg to differ with you.

*Mr. Crowther:*¹⁵ Mr. Kirby, the gist of your remarks was, it seems to me, that the existence of this Federal estate tax robbed your descendants of a protection that was due them because of your thrift and the efforts that you have made to accumulate this property.

Mr. Kirby: I think so.

Mr. Crowther: You are a protectionist, are you not?

Mr. Kirby: I am for a competitive situation (laughter) that will enable my producers——

In their attempts to prevent the state from taking substantial shares of their property in the form of taxes, the owners of large amounts of property are handicapped by the fact that men holding views such as those indicated in the following selection frequently find their way into legislative halls. They doubt the importance of the arguments presented in eloquent appeals against inheritance taxation and advance arguments of their own in favor of it. The general nature of the clash of conflicting interests over legislation will be discussed in a subsequent chapter; the debate over inheritance taxes is only one instance of a continuing conflict between the owners of large amounts of property and groups less favored in that regard.

A PLEA FOR INHERITANCE TAXATION¹⁶

by Senator George W. Norris

AN INHERITANCE tax is one of the easiest taxes collected, it is one of the least burdensome of taxes, and its collection necessitates but very little additional governmental machinery. In addition to all of this, it is one of the fairest taxes and if properly graduated would yield an immense amount of income. There is perhaps no other tax ever devised that causes as little distress in its payment and collection as an inheritance

¹⁵ Congressman Frank Crowther of New York.

¹⁶ From an unpublished manuscript, printed with the author's permission.

tax. There should be in the first place a liberal exemption. The first fifty thousand or even the first hundred thousand dollars should not be taxed at all; and then the tax should begin at a very low rate and increase gradually; in the large estates running into many millions, the tax should be as high as 50 per cent or 60 per cent.¹⁷ A tax on an estate, let us say, of twenty-five or fifty million dollars that would go as high as 75 per cent would cause no hardship or injury to any person. This tax, besides bringing in a large revenue, would have a tendency to break up the large estates. There is no doubt but what the entailing of extremely large estates is injurious to the general prosperity of the country. There is no reason why the laws which permit a man to accumulate these large fortunes and use them as he chooses during his life should not step in and prohibit the entailing of such immense fortune, when the owner and possessor of it has passed away. With a properly graduated rate there would be no injury to any of the testator's descendants. It cannot be said that it is unjust to the people who would otherwise inherit the fortune that a portion of it has been taken to pay the expense of running the government that protected the man who accumulated it during his lifetime. It is one of the fairest methods ever devised for producing revenues. It places the burden where it will not be felt and at the same time does injury to no one.

QUESTIONS

1. Outline ten changes in the rights of various classes of property within the past twenty-five years. Two examples are those introduced by zoning laws, and legislation regulating the railroads. When you have made your lists, presumably including some changes made locally and some nationally, consult the reports of the state Supreme Court and the United States Supreme Court, noting how many of the changes have been resisted by owners of the types of property affected. Outline the general nature of the arguments advanced on both sides.
2. "'Property' is a legal conception which has only a casual, if any, connection with the study of economics." Criticize this statement.
3. Draw up a statement of the risk theory of profits which you think might do only minor injustice to the facts of modern economic life, as you see them.
4. Criticize the argument that profits are something for nothing.
5. Outline what you think has been the contribution of the corporate form of organization to the growth of large fortunes in the United States.

¹⁷ Under the present federal law the exemption is \$100,000 and the maximum rate 20 per cent on that part of estates over \$10,000,000.

6. Do you agree that "keeping riches once gained is easier than ever before"? Why or why not?
7. By consulting trade papers find out a dozen ways in which business managers of various enterprises are at present endeavoring to cut costs. After consulting the records of the Federal Trade Commission and the United States Supreme Court, outline a dozen ways by which business managers have endeavored to increase the selling prices of their products in recent years.
8. How do you account for the fact that owners of large amounts of property are, as a group, much more insistent on the virtues of economic individualism than industrial wage workers are?
9. Is a man consistent when he advocates a protective tariff and at the same time favors a system of economic individualism? Explain.
10. Would you expect companies specializing in the sale of municipal bonds to favor rigid "blue sky" laws? in communities where there is much financing of gold mines and oil wells? Explain.
11. What would you expect to be the attitude of the American Federation of Labor toward inheritance taxation? of the American Farm Bureau Federation? of the United States Chamber of Commerce? What are the reasons for your opinions?
12. Do you agree with Senator Norris that "the entailing of extremely large fortunes is injurious to the general prosperity of the country"?

ASPIRATIONS FOR MORE INCOME: CONSUMERS

IN THE study of the conflicting aspirations of various groups for more income, we turn now to that all-inclusive group—consumers. The treatment of consumer problems in this chapter will include discussion of:

- (1) Getting and spending money as parts of the same general problem of securing a satisfactory livelihood.
- (2) The problem the consumer faces in trying to get his “money’s worth.”
- (3) Devices which may aid consumers in getting their “money’s worth.”
 - (a) Producer coöperation in providing more adequate descriptions of the quality of goods.
 - (b) Consumer protection by law.
 - (c) Consumer coöperation.

FOR any individual the problem of obtaining a satisfactory income consists of at least two parts. One is acquiring a money income. The other is spending it. The problem of gaining a satisfactory income is, of course, much broader than that of getting and spending money, but these activities, none the less, are generally major factors in the problem. When money is spent for things that do not give satisfaction, the net result to the owner and spender of the money is much the same as though less money had been received in the first instance and more skillfully expended. Consequently, problems involved in the expenditure of money by consumers are an integral part of the general one of obtaining satisfactory income.

Methods of spending money ordinarily receive much less attention than those of acquiring it. In most cases the quest for money is so absorbing that people have little time or inclination to worry about possible perplexities in spending it. The general attitude is “Give me the money and I will have no trouble spending it.” Of course there are exceptions; Benjamin Franklin’s maxim “A penny saved is a penny earned” is taken very seriously by some for whom the term “spendthrift” implies condemnation.

In addition to the fact that the absorbing character of the problem of getting money tends to overshadow the problems involved in spending, our economic system is so organized that there has been little opportunity to develop specialized knowledge about spending. Along

the lines of manufacturing and selling, ours is a highly specialized system, manned by experts in very limited fields. Our system of consumption, however, has not reached any very high degree of specialization. Most of the spending money for consumption is intrusted to housewives who disperse their energies over a very wide range of activities, and consequently are not very highly specialized in any of them.

The constant development of more complex machine-made products, for which conflicting claims are made by competing parties, has also complicated the problem of spending judiciously. Judging the relative merits of the various brands and products offered for sale often requires information, experience and time not at the disposal of the housewife, who does most of the buying.

To those who have faith in the beneficence of competition, the situation of the consumer causes no particular concern. They point out that competition among sellers provides a guarantee that products will be of good quality and be sold at the lowest possible prices. Examples are ready at hand to prove that producers who sacrifice quality eventually fail. Advertising is often said to furnish the consumer information which was lacking in an earlier period when the clumsy method of personal salesmanship was the only reliance of sellers.

Other observers are much less sanguine about competition as a certain protector of the consumer. They may agree that under certain conditions competition would ultimately force sellers to market products of good quality at the lowest possible prices, but insist that at the present time these necessary conditions are not always fulfilled. They note that frequently consumers cannot judge quality accurately, and suggest that under such circumstances the firm that makes products of better quality than those offered by its competitors may suffer for its pains; sales and income may be no greater, and the conscientious firm may suffer because its costs for better materials and workmanship are higher. Under such circumstances, it is urged that laws requiring a certain standard of quality are in order.

These critics also note that while certain large business enterprises are able to hire full-time buyers and use expensive testing devices to determine the merits of products, the housewife has many jobs besides buying, has less information at hand, and practically no testing devices. They contend that the process of learning the art of buying in this way must be a slow one for the small consumer, and consequently competitive elimination of tricky merchants may take a long time. Meanwhile, new schemes may have taken the place of the old, and the consumer, enlightened in certain particulars, may be faced with new difficulties. Or a new generation of uninitiated consumers may have

arisen, a continuing process which caused P. T. Barnum to remark that "a sucker is born every minute." And finally, those who doubt that the prevailing system affords certain guarantees that the consumer will get his money's worth call attention to cases where competition is modified by brand monopolies, or by agreements among producers, to support their contention that special protective devices are needed to aid consumers in getting as much as possible for their money.

This chapter will consider some of the problems consumers face at the present time in passing judgment on the goods they purchase, and some of the existing and proposed methods of solving these problems. We shall be concerned with questions as to whether consumers get their money's worth, rather than with problems relating to the origins of their tastes. Any investigation of the origins of consumers' tastes would inevitably lead into studies of psychology, the relative influence of environment as opposed to heredity, the comparative importance of home, school, church, business, and industrial influences in determining tastes,—a study involving almost every field of human knowledge. In describing the situation we shall be content to consider the question of whether or not consumers, regardless of their tastes, get their money's worth. This question is answered in the negative by the following article, whose authors suggest a method of improving the position of the consumer.

A FEW BILLIONS FOR CONSUMERS¹

by Stuart Chase and F. J. Schlink

WHY do you buy one make of automobile rather than another? Because the first cost is less; because your old car was the same make, because you like the lines, or the gadgets, or the winged whatsits on the radiator; because there isn't so much down for cash; because you've heard the upkeep is low; because nobody could get away from a salesman like that; because everybody is buying them this year. . . . You do not know, nobody in America knows, the real comparative value of your car, for the money you pay for it, and for the average use it will be put to. Broadly speaking, your purchase of a motor, while a fascinating game, is a blind one. You are not likely to get as badly sunk as on the stock exchange, but the fundamental principles have much in common.

For the expenditure of about a million dollars, it would be possible to take every current type of motor car made over a standardized 10,000-mile road test under controlled conditions. One million dollars is roughly the equivalent of Mr. Ford's output every two hours. At the

¹ Adapted from "A Few Billions for Consumers," *New Republic*, December 30, 1926, and January 6, 1927.

close of the experiment, the figures for each make could be published in parallel columns, without comment. Just the cold figures—so many miles per gallon of gas and oil, so many failures of one kind or another per 1,000 miles, so much braking ability from a given speed, and so on. Would this help you in choosing your next car? Not if you were an exponent of conspicuous consumption. But if you really wanted to go back of the advertising, the high-powered salesmen and the dandy little jiggers on the dashboard, and find out what was the best car for your needs and your money—it would help tremendously. As the motor car becomes increasingly a utility and decreasingly an emblem of swank, the help to the main body of purchasers would be untold. In the end, such a list would set up standards of performing excellence, and force persistently inferior types off the market altogether. For the million-dollar outlay, who should say what savings in tens and scores of millions would be repaid to the American people?

The great bulk of the things which we consumers buy are never reviewed by any impartial testing body. Most of them advance upon us from behind a great smoke screen of advertising. As no advertiser was ever known not to assert that his product was the best, the consumer learns nothing of comparative values from this avalanche of encomiums. Worse, so able may be the psychology of the advertising that the consumer may be led into buying a markedly inferior product. A certain roofing-paper concern accumulated large stocks hoping to secure government contracts during the war. Impartial tests found the material far below standard. Nothing daunted, the company disposed of the stocks to the general public through a nation-wide advertising campaign.

Given time enough, and trial and error enough, quality will in many cases make itself felt. But consider the waste of the trial and error method as against a permanent source to which we might turn for the results of impartial tests and the setting of impartial standards.

The United States government has solved the problem some time since, for its own purposes, and provides a working model of how to do it, and what is to be gained from it. Each year the government buys some \$300,000,000 of products—ranging all the way from thumb tacks to dredging machines; from baseballs to battleships. Nearly every kind of thing the general consumer buys, the government buys—though in not such great variety—foodstuffs, textiles, clothing, furniture, building materials, office supplies, shaving tackle, sporting goods, toilet articles. . . . everything. But in buying much of this material, the several purchasing agents pay no attention to pretty girls or magazine covers, nor yet to super-salesmen with pants like the Prince of Wales'. They pay attention to instructions from the Bureau of Standards. Half-way between Washington City and Chevy Chase, these great laboratories and testing rooms rise—magnificently on guard. Skilled chemists, physicists, engineers, research workers in a hundred fields are passing continually and relentlessly upon the relative quality of the goods which the purchasing agent proposes to buy. During the last fiscal year, the Bureau made no less

than 173,000 tests. For an operating cost of \$2,000,000 it is estimated that the Bureau of Standards saves the government better than \$100,000,000 every year—an investment which nets fully fifty-fold.

To illustrate concretely. The government became suspicious of gasoline pumps in filling stations in the District of Columbia. This was not a case of wanting to buy pumps so much as wanting to know if government cars were getting full measure. The Bureau was put to work. Engineers tested measurements, and found them pretty uniformly short. In the state of Illinois alone, they calculated that consumers of gasoline were losing \$500,000 a year from filling station shortages. All types of pumps were then tested. The theory of a perfect 100-per-cent pump was developed. Finally a specification was written, which if followed by a pump manufacturer will give him an error of not over one-half of one per cent. Pumps made to this specification will give the consumers fair measure where unspecified pumps had given him, generally speaking, nothing but shortages. Certain local political areas are now protecting their citizens by requiring pumps made to specification; the District of Columbia is so protected, but over great areas filling-station shortages are still the rule.

There are billions to be won if the consumer—both ultimate and intermediate—can follow the example of the federal government in purchasing material. Information as to comparative quality is one arm of the technique; buying to specifications which flow from tests and research is the other.

The map of American industry is more or less spotted with the experimental beginnings of tests and specifications for buying goods. Outstripping all others are the large red spots which mark the government services and the engineering societies and associations coöperating under the Engineering Standards Committee. But there is no large attempt to correlate and unify the experimental stations, and above all there are only very feeble and uncoördinated attempts to allow the ultimate consumer a share in the potential benefits and savings, except in so far as he benefits indirectly by virtue of standardization carried on by the manufacturer. There is as yet very little demand from the ultimate consumer. He does not know about it in the first place, and he isn't organized in the second place. There is, however, an emerging demand for tested products from some large intermediate consumers.

Possible mediums through which the small consumer might organize a demand are the organized labor movement, the women's clubs, the teacher's unions, producers' and consumers' coöperative associations. The great mail-order houses like Sears Roebuck might do much for the consumer in this respect—as well as save postage, needless filling out of forms, and bookkeeping on goods returned.

This, then, is the field. If consumers' demand can make itself felt, and if reliable testing bureaus and laboratories can be maintained on a sufficient scale to meet the demand—an enormous aggregate of industrial waste can be eliminated, and enormous savings made. The practical problems are

how to organize the consumer, and under what auspices to maintain the testing bureaus. The whole concept is so new that constructive analysis and thinking have only begun to go to work.

. . .

If a good case can be made to prove that consumers do not have the equipment to gauge the merits of all the products they purchase and, as a result, are continually victimized by their ignorance, what, if anything, is likely to be done about it? What proposals are offered to alter the situation?

One proposal has already been made in the preceding article. Consumers may demand impartial testing bureaus for the fixing of standards to guide them. Another suggestion is that manufacturers might profitably aid the consumer to avoid mistakes in buying by registering the quality of their products, along with the trade mark, thus protecting themselves against the competition of inferior products. This suggestion is expanded in the following article, dealing specifically with the present position of manufacturers and consumers of cotton textiles.

STANDARDS FOR THE CONSUMERS²

by Rosamund C. Cook

AN EXAMINATION of shopping practice shows that there are three general methods of procedure in the buying of textile fabrics. The consumer asks the sales person for information; she forms judgments by comparing the goods, by feeling and by scrutiny; she compares prices with goods. Since every consumer is anxious to spend her money wisely, it seems logical to examine this procedure. Are the common methods of buying trustworthy? Why do the goods of any particular manufacturer sell?

A test has recently been made to determine the reliability of our present methods of buying fabrics. Sheeting was selected to be the medium for the test because the factors which determine quality can be measured by laboratory test. A sample of each sheeting—nine in all—was marked with the trade name, the price and a recording letter. The remaining material was divided into two sets, one set to be evaluated by practical procedure by ten judges and the other set to be tested in the laboratory for weight, warp and filling, count, and for tensile strength by the 1-inch strip breaking method. The results of the laboratory tests were mathematically combined to give the quality rating to each sample.

The consumer judges were asked to arrange the samples in the order of their wearing quality, best first, etc., using the usual consumer method of judging. The results of these judgments were then combined to give a rank for each piece. Sample A was placed ninth or poorest by both test

² Adapted from an article in *Cotton and its Products*, January, 1926.

and judgment. Two others, samples H and G, were judged within half a step and a full step, respectively, from the laboratory rank. Sample I was placed first by the judges but came out 4.5 by test. Sample D was placed second by the judges but tied with sample H for seventh place by laboratory test. The remaining samples were misjudged four and five steps off from the laboratory rating.

The next comparison was between the laboratory-obtained rank for quality and price. Again there was lack of agreement. Sample E and sample B are alike in quality but the price of sample E is two and a half times greater than the price of sample B, the price of sample E being 86 cents and that of sample B, 35 cents. Sample D is next to the last in quality but second highest in price, yet is approximately one-half the price of sample E, which was the highest. Sample F is sixth in position and priced at 26 cents; sample A, on the other hand, is ninth in position, yet the price is 31 cents or 20 per cent higher than sample F. The evidence then goes to show that personal judgment and price cannot be used as trustworthy guides in buying sheeting.

To the writer there are two valid conclusions to be drawn from this study, viz., women need better methods of buying for self-protection, and the manufacturer needs protection from their mistaken judgments. For example, the manufacturer of sample C, which was the first in quality, certainly will not esteem being placed in the fifth position. He suffers equally with the consumer who made the mistake.

Is there a possible method of protecting both the consumer and producer?

The solution to the problem is suggested in the guides to advertising, such as "Words show *how* the article is best" and "The printed word is the manufacturer's guarantee." Acting upon these suggestions, the manufacturer could register with the trade name, certain *minimum* standards below which his goods would not fall. The factors named include only those which any trained textile person could find by laboratory tests, so the field of "trade secrets" would not be invaded.

Another method of procedure is suggested. The manufacturers could act as a group and, either alone or in coöperation with the U. S. Bureau of Simplified Practice and Bureau of Standards, agree upon class or grade levels based upon the factors which were agreed to be important in determining values. The individual manufacturer would then register with the trade name of his goods the class or grade in which he wished to maintain his standards.

In both cases, whether the manufacturers acted independently or in a group, it is understood that the goods be marked with the trade name, and the class or standards to be maintained made a clear part of the label.

It will be noted that the initiative for the movement is placed on the manufacturer, and for these reasons: he is better situated for the work than the consumer; he has more contacts; he has more information; he is better organized from the individual as well as the group standpoint.

Frequent appeals have been made for the passage of laws to protect consumers, and quite a variety of state and federal legislation designed for that purpose has been enacted. Samples are the federal laws governing weights and measures and the sale of food and drugs, and the state laws relating to the sale of food and drugs, the sanitation of food factories, and, to a limited extent, "truth in advertising." An increasing number of voices can be heard demanding more strict enforcement of these laws. Campaigns are in progress to extend this kind of regulation to commodities other than food and drugs, as evidenced by the demand for "truth in fabrics" legislation.

Probably the most widely discussed of these efforts at legal protection of the consumer are the pure food and drug laws, particularly the federal Food and Drugs Act of 1906, designed to prevent adulteration and misbranding of food and drugs entering into interstate commerce. Three selections on this subject are presented below. The first one, written about the time of the passage of the federal law, indicates what kind of food the consumer might have been expected to eat prior to the passage of the law. The second, written by a government chemist connected with the enforcement of the federal Food and Drugs Act, recounts some of the achievements of the law and describes its enforcement. The third article has a somewhat different story to tell; it is written by the man who was in some measure responsible for the passage of the law, and who was for several years in charge of its administration, but who later resigned in protest against restrictions put upon his enforcement of the law. His contention is that the purpose of the Act has been thwarted by bad administration.

THE CHEMIST AND HIS DINNER ³

by Dr. Edward A. Ayers

MISS PRISCILLA PETERKIN had given a week-end entertainment to a few friends, including an analytical chemist from Boston. Here is an abstract from his diary:

"We had a savory breakfast of home-made sausage and buckwheat cakes. The coffee, bought 'ground,' had a fair degree of coffee mixed with the chicory, peas, and cereal. There was enough hog meat in the pure 'home-made' sausage to give a certain pork flavor, and about one grain of benzoic acid in each *pâté*. I also detected saltpetre, which had been used to freshen up the meat. Whether corn or potato starch or stale biscuit had been used as a 'filler,' I had to leave in doubt.

"The buckwheat cakes looked nice and brown, from their generous

³ Adapted from "What the Food Law Saves Us From," an article in *World's Work*, September, 1907,

mixture with rye and caramel. The baking powder had too much alum, but it did its work—it raised the cakes; the olcomargarine that came from the grocer as ‘pure butter’ looked golden rich, and added one more grain of benzoic acid to my portion. The pure maple syrup, with some 90 per cent of ‘golden drip’ (commercial glucose), upon the hot cakes, really tasted more like maple than some I have had in the Canadian maple camps. But there was an after-glow on my tongue of a coal-tar essence that must have been used too freely. Another grain of benzoic acid taken in with the syrup didn’t matter very much.

“For lunch, we enjoyed spring lamb chops of frozen tenderness—and nitre and red ochre freshness. The peas were copper-greened and fresh—from the can. The horseradish was out of a bottle of ground turnip, while one-third of a grain of benzoic acid and some cochineal came with the brilliant ketchup. A whole grain of benzoic acid (natural to the fruit) joined those which had gone before, when I ate some cranberries.

“Our hostess praised the ‘home-made’ quince jelly, one of the ‘Mother Jones Pure Jellies.’ This particular specimen worked out as apple juice, glucose, gelatine, saccharin, and a flavoring coal-tar essence of quince, formula $C_2H_5C_9H_{17}O_2$. There was just a little benzoic acid here. I had to take a long walk after lunch; having overheard the order for dinner, I figured on about 11 to 15 grains more of benzoic acid reaching my stomach by bedtime.”

PROTECTING THE CONSUMER FROM FOOD AND DRUG FRAUDS ⁴

by F. B. Linton

FRAUDULENT practices in the food and drug industries not only affect the pocket book but may also affect the health of consumers, and for that reason we have special laws to prevent commercial deceptions in these most essential commodities. Certain forms of misbranding which are tolerated in traffic in other merchandise are declared illegal when applied to what we eat and drink. These laws recognize that it is the duty of the state to protect the health of consumers by promoting purity in foods and drugs, and also recognize that an economic fraud resulting from the misrepresentation of foods and drugs is a more serious offense against society than are similar practices in the sale of other merchandise.

Specific Acts relating to foods and drugs therefore emphasize truthful labeling and provide penalties to prevent false or misleading statements on labels, as well as to prohibit adulteration that may be harmful to health. The federal Food and Drugs Act is limited to printed, written, or pictorial matter which is in or accompanies the package.

The courts have interpreted the federal Food and Drugs Act in a broad way to prevent any misbranding that misleads or deceives, recognizing that consumers have the right to know what they eat and drink. Many

⁴ Adapted from an article in *The Nation's Health*, October, 1925.

of the purely economic frauds in traffic in food can be corrected by truthful labeling, as, for instance, the sale of a fruit jam that contains a smaller proportion of fruit than a standard jam should contain. If properly labeled so that the consumer will know exactly what the product is, there can be no economic fraud. But if the label does not indicate that it contains less fruit than a normal jam, it will almost certainly be sold for a higher price than would be the case if its composition were known by the purchaser. By bringing about truthful labeling through the enforcement of the federal Food and Drugs Act, the enormous economic frauds are prevented.

The federal Food and Drugs Act does not confer authority on federal officials to regulate directly the sanitary practice of food concerns. The Act prohibits the shipment into interstate commerce of any food products which are adulterated, and a food is adulterated under the Act "if it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance," so that it is possible to take action against shipments of food that enter interstate commerce if the food can be proved to be contaminated.

Many of the states have authority under state law to close insanitary food factories until they are cleaned up, so the federal officials when they find food factories that are in an unsatisfactory condition frequently call on state food and health officials to act. Close coöperation between federal, state, and municipal food and health officials makes the work of all more effective, and makes it increasingly difficult for fraudulent practices in the food business to survive, whether the fraud results from acts of omission or acts of commission.

Through the operation of the federal and state food laws, the use of harmful preservatives in foods has been practically eliminated. Formaldehyde, boric acid, and salicylic acid are no longer permitted in foods entering interstate commerce.

Some of the fraudulent practices in the patent or proprietary medicine business have been alleviated through the operation of the federal Food and Drugs Act, but other of the fraudulent practices in that business are not covered by the Act. The Act prohibits the shipment into interstate commerce of medicine or drugs if the package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of the preparations which is false and fraudulent. Formerly it was claimed on the labels of various patent medicines that they were sure cures for such dangerous diseases as tuberculosis, cancer, pneumonia, and a host of other ills for which there is no known medical cure. A comparison of the labels of these preparations now with those of ten years ago shows that great changes for the better have been wrought by the operation of the law in the matter of eliminating false labeling.

However, the federal Food and Drugs Act does not apply to advertising in newspapers, magazines, or on bill boards, and in many instances the false statements which are eliminated from the labels are transferred to advertisements. While elimination of the false statements from the labels

increases the difficulties in selling worthless preparations, yet too many of the credulous are still reached through false advertising.

The general rule of practice before the days of pure food laws was "Let the buyer beware," but in the food and drug business that has been superseded to a considerable extent by the rule "Let the seller beware." This is not that the buyer may neglect to exercise ordinary discretion in the purchase of food or fail to learn all that can be known about the food purchased, but it is that the seller, when he defrauds the buyer, may be called to an accounting not only by the buyer individually but also by all buyers acting collectively through organized government.

As the result of the operation of the federal Food and Drugs Act and of state laws along similar lines during the last fifteen years, there is today relatively less fraud and less unfair competition in the food business than in most other lines of commercial activity.

MALADMINISTRATION OF THE FOOD AND DRUGS ACT ⁵

by Dr. H. W. Wiley

CONGRESS placed the enforcement of the federal Food and Drugs Act in the Bureau of Chemistry. But in 1907 a "Board of Food and Drugs Inspection" was created by an Act of administrative proclamation. This board was appointed to take away from the Bureau of Chemistry the power conferred upon it by Congress to determine whether or not an article of food or a drug was adulterated or misbranded. Soon afterwards another board was created by executive authority—the "Referee Board of Consulting Scientific Experts." This board was created to do expert work for food adulterators and to overthrow the findings of the Bureau of Chemistry already made as to what, in the opinion of the Bureau, are poisonous or deleterious ingredients in foods. Thus we see, with two boards functioning to impede enforcement, the food law was practically paralyzed.

Immediately after the appointment of the referee board, instructions were issued by the Secretary of Agriculture to bring no cases against certain poisonous and deleterious ingredients until after the referee board had given them further consideration, viz., benzoate of soda or benzoic acid, sulphur dioxide or sulphites, copper or its salts, alum or any of its compounds, and saccharin in any form.

The present practice of the Bureau of Chemistry approves of and holds as sacred the decisions of the Board of Food and Drug Inspection and of the referee board. All these indulgences to poisonous and deleterious substances are still continued without let or hindrance. The users of the products are fully satisfied that these forms of adulteration will continue to be under the high protective power of the officials of the Bureau of Chemistry. In all the world's history no such perversion of a salutary law can be found as this which obtains in this country at the present time.

⁵ Adapted from a letter to the *Oil, Paint and Drug Reporter*, issue of November 22, 1926.

This administrative laxity has induced enemies of pure food to introduce bills into Congress repealing some of the most important principles of the pure-food law. I may ask why they go to such extremes? Why not influence the administrators of the law further to let down the bars and permit further illegal practices, just as they have done from the beginning?

The people of the United States who, in the majesty of an outraged public opinion, twenty years ago secured the enactment of this most salutary and beneficial of all laws, demand that the law be administered as Congress passed it and as the people had hoped and expected.

Among the possible devices to aid consumers in getting their "money's worth" is that of consumer coöperation. This involves the entrance of organized consumers into the field of distribution and, in some cases, manufacturing. They furnish the funds to establish enterprises to handle products which they wish to buy and, in turn, expect such enterprises to be conducted for their benefit. In other words, they seek to appropriate for themselves the profits which business concerns might make in selling them goods.

If successful in diverting to themselves payments which would otherwise be absorbed as profit by private enterprises, consumer "coöps" may utilize these payments in many ways. They may use them to reduce selling prices of goods, to improve quality, to finance propaganda efforts on which the members of the "coöps" are agreed, or to improve the wages and working conditions of their employees. In Europe, where there has been an extensive development of the consumer coöperative organizations, all of these and various other programs have been attempted. In the United States the consumer coöperative movement has concerned itself principally with the problem of reducing the selling cost of goods to its members. Thus far in this country, consumer "coöps" have made relatively little headway. Following two statements outlining the nature and extent of consumer coöperation in this country, some possible reasons for its comparative lack of success are suggested.

CONSUMERS' COÖPERATIVES ⁶

by Harry W. Laidler

THE consumers' coöperative movement is organized by the consumers for the purpose of purchasing goods under conditions determined by themselves. Each member-consumer has one vote in the election of the governing committee, and no one more than one vote. A person may become a

⁶ Adapted from *Roads to Freedom*, League for Industrial Democracy, 1925.

member on payment of a small fee, at times \$1.00, at times \$5.00, and at times \$10.00. Interest on capital invested by the members is fixed at a low rate. The coöperatives usually sell goods at the same price as that charged by competing merchants. At the end of the quarter they return to the customer member a "dividend" or savings-return in proportion to the value of the goods purchased.

Since the birth of the movement in Rochdale, England, in 1844, the idea has spread, until today practically every country in Europe has strong consumers' coöperative groups which have organized not only hundreds of retail coöperative stores, but great wholesales and large numbers of factories. In many instances the coöperatives possess large tracts of land, and operate banks, insurance companies, building associations, educational institutions and various other enterprises. In 1922 it was estimated that some 3,000 coöperative stores existed in the United States with an annual business of about \$100,000,000.

The movement has thus far saved millions of dollars to working-class consumers; set a high standard in the quality of goods sold; promoted thrift, eliminated many wastes found in competitive industry, given a valuable training to thousands of workers in the technic of distribution and production, and brought to the forefront able working-class leaders who could be trusted. It has provided the employees of the "coöps" with somewhat better working conditions than those prevailing in private enterprises. It has offered valuable educational and social opportunities to thousands of working-class consumers. It has demonstrated that industry can be conducted for use as well as for profit. It has strengthened the bonds of brotherhood between peoples of various countries. It has promoted the ideals of justice and of mutual aid.

On the other hand, the movement has thus far confined its field of action largely to the distribution of articles of daily use in the household of the worker, and has not as yet touched such national industries as the railroads, the mines, etc. The large bulk of its membership is probably interested more in the "dividend" that comes at the end of the quarter than in any ultimate social ideals. Most of the coöperative stores have not as yet been able to interest the majority of their members in the actual conduct of the business, nor have they worked out a satisfactory scheme of representation for their employees.

CONSUMER COÖPERATION IN THE UNITED STATES⁷

by Florence E. Parker

THE word "coöperation" has within the past few years taken on a new significance to many of the people of the United States. Today it means more than simply "working together." Coöperation in most instances, it is true, makes an appeal to the enlightened self-interest of the individual. It is looked to as a means of lightening the burden of

⁷ Adapted from U. S. Bureau of Labor Statistics, *Bulletin No. 313*, 1923.

high prices and low wages, through the elimination of all unnecessary middlemen. But the element of idealism and altruism inherent in the movement gives it a wider significance and appeal than a strictly economic movement would have.

In general, coöperation embodies industrial democracy. In the true coöperative society, membership is voluntary and open to all. Shares are of low denomination and may usually be paid for in installments. At meetings each member has one vote and no more, regardless of the amount of stock he holds. In order to insure comparative equality in the financial status of members, the number of shares that may be held by any one member is limited. Capital receives interest at the legal rate, it being the coöperators' belief that the owner of capital should receive a fair price for the use of his money, but no more than a fair price. The possessor of a great deal of money therefore has no more power in the affairs of the society and no higher standing than his poorer fellow member. In the coöperative movement all are on the same footing. It has been said that the motive power of the movement is the man and not his money, and this principle is logically extended to every part of the movement, federations as well as local societies. No financial group can obtain a controlling interest in the true coöperative society.

The distinguishing feature of the coöperative system is that it exists for the common good. All land or buildings acquired become the common property of all the members. Every economy in manufacture and distribution, and every advance in efficiency or improvement in machinery, benefits every member, instead of going as profits to some one person or class.

The coöperative movement as we know it today was inaugurated in 1844 by twenty-eight flannel weavers of Rochdale, England, as a means of relief from the existing poverty, unemployment, adulterated food, and exorbitant prices. The movement has remained preëminently a working-class movement and as such has spread to every continent.

The United States was one of the first countries to follow the lead of the "Rochdale pioneers," as they are called. The first consumers' coöperative organization in this country is said to have been a buying club established in Boston in 1844. Out of this club grew the powerful New England Protective Union which flourished for a while, but was disrupted by internal quarrels and was finally superseded by the American Protective Union. Through the efforts of the latter some 700 stores are said to have been established in New England.

During the early 'seventies, the Patrons of Husbandry, a farmers' order, established a number of coöperative stores, some of which still exist. In 1874 a purely coöperative organization, the Sovereigns of Industry, was established. This association opened stores all through the North Atlantic coast States, but failed in 1879 through poor business management.

Not all of the early coöperative ventures were strictly coöperative in principle. In many cases, the coöperative idea was subordinated to some other economic, political, or social theory which caused the failure of the coöperative scheme. This was true of the movement supported by the

Knights of Labor about 1884, in which the coöperative feature was incidental to their political program, the failure of which destroyed the stores.

From 1874 until the end of the century, the coöperative movement in the United States languished, only a few isolated stores surviving. Of late, however, and especially during and since the war, interest in all lines of coöperative activity has revived.

DIFFICULTIES OF CONSUMER COÖPERATION IN THE UNITED STATES⁸

by James Ford

OF 56 consumer coöperative societies that have dissolved within the past fifteen years, the stated causes of failure are surprisingly similar. The testimony tersely given by former managers or secretaries is thoroughly instructive. For example, the half-illiterate manager of a small New Hampshire society which failed in 1907 wrote: "The hole cause of its going under they would not corprate and small capital." The secretary of another society of the same state wrote: "The association went up for the reason that its members could not be taught coöperation and its value in the future." A Connecticut society wrote: "The company went into bankruptcy for the reason that its members, 136 in number, did not sustain the store and the management had to rely on outside trade, and not being able to collect from members, times being hard, the result as above." The secretary of a Maine society wrote: "There is something lacking, they cannot make one run in Maine. I think the most trouble is they do not get a man who is used to buying and is honest to run them."

These four letters contain the essence of the causes of failure usually ascribed: bad management, extended credit, dishonesty, ignorance and disloyalty of members. Closer examination shows that these causes may be reduced to two, of which all others are but phases—bad management and lack of coöperation.

Coöperative societies not only fail from unwise selection of officials but also by trying to save money by paying their manager too small a salary. Thus, one of New England's largest coöperative stores pays its manager only \$21 a week, which is much less than his service would command elsewhere. If the manager is full of coöperative idealism he may accept the low salary and stay at a sacrifice, but otherwise, especially if he has business initiative, he may seek a more lucrative position elsewhere. Change results in instability of management, with consequent loss inevitable upon readjustment.

⁸ Adapted from *Co-operation in New England*, Survey Associates, Inc., 1913. Copyright, 1913, by the Russell Sage Foundation.

Recently the ability of coöperatives to gain a strong hold in this country on the basis of price reductions to consumers has been seriously limited by the development of chain stores, which has also played havoc with the prosperity of small "independent" dealers. The nature of this development is discussed in the following article, which suggests some of the effects the rapidly expanding chain store system has already had on the position of the consumer, and some developments likely to occur in the future.

THE CHAIN STORE AND THE CONSUMER ⁹

by George Soule

THE service of the chain store is no longer confined to a few types of merchandise. A family might live, and live well, in most cities, without ever patronizing an independent store. The tobacco and drug chains, which now are among the oldest and best established, alone supply many of the popular wants—indeed, a person could obtain almost anything in a modern chain "drug" store, unless, indeed, he should require the services and stock of an expert pharmacist. Men's furnishings and clothing, women's stockings and lingerie, shoes, groceries, meat, candy, music, dry goods, bakery products, laundry work, cleaning and dyeing, gasoline and oil—one after another of the fields of retail supply are being invaded and conquered by large-scale enterprise. The time may arrive, almost before we know it, when it will be difficult to buy anything of importance without patronizing the chains.

Since the United States has never taken a census of distribution, we do not know many facts about this mercantile revolution which would be interesting. We can, indeed, only guess at its extent. Dr. Paul H. Nystrom of Columbia University estimates that of the total retail trade of 1926, amounting to about \$40,000,000,000, chain stores did 12 per cent. More significant than their status at the time, however, was the gain of the chain stores from the date of his survey in 1923—only three years earlier. While the total retail business was increasing 10 or 12 per cent, or at the rate of 3 or 4 per cent a year, chain stores made a gain of 50 per cent, or more than 16 per cent a year.

If we think of the increase of the chains principally in terms of Woolworth and its competitors, we distort the picture. Grocery chains made the enormous gain of 75 per cent between 1923 and 1926, according to returns to the Federal Reserve Board. Next came the candy stores with 56 per cent. Men's wear chains grew more than 11 per cent during 1927 alone—generally regarded in the trade as a poor year—and in January, 1928, 22.7 per cent of the men's wear shops were in chain organization. If the present rate of growth continues, the whole trade will be in their hands in about twelve years.

In the larger cities, the business of the chain stores bulks even greater.

⁹ Adapted from an article in the *New Republic*, April 4, 1928.

The Census Bureau recently undertook a trial survey of retail distribution in eight cities—Chicago, Baltimore, Providence, Kansas City, Seattle, Denver, Atlanta, and Syracuse. Of a total retail business of roughly \$3,500,000,000, chain stores did \$1,055,000,000, or just under one-third. The trade of the independent stores (excluding the department stores) was about \$1,900,000,000. That of the department stores was about \$553,000,000. And some of these were members of chains.

At this rate, the transition from small-scale to large-scale distribution bids fair to be more rapid and complete than the much discussed transition from small-scale to large-scale production. How may we account for it? And what are likely to be its results?

The main advantage of the chain store lies in its ability to eliminate, in one form or another, the appalling economic waste which has characterized retail distribution by small, independent units. In the eight large cities surveyed by the Census Bureau there was still, in spite of the growth of chains and department stores, an average of one store to each 73 inhabitants. The average yearly sales of each of the independent stores (including the department stores not in chain systems) were only \$36,526. If the department stores were to be excluded from the average, it would probably fall to something like \$20,000. Each of these tiny units had to be staffed by persons who were either idle a large part of the time, or busy on tasks which would be greatly shortened with proper system and management, tasks which would require little more time with a much larger volume of business. Each carried on its shelves a large variety of stock, much of which was turned over slowly and some of which was scarcely turned over at all. Each was solicited by competitive salesmen and advertising matter, in the effort to sell in small lots highly varied merchandise. The merchandise had to be separately packed, wrapped, and shipped. Much of it traveled a circuitous route from manufacturer through jobber or wholesaler, each stage of the travel involving the cost of handling and the profit margin of the handler. Is it any wonder that the immense savings of mass production and of science in the factory have found so little reflection in the prices of the goods we have to buy in retail shops?

The chain, securing desirable corners or other locations shrewdly chosen, adopting uniform and striking store fronts and signs, using the latest arts of display and enticing arrangements of stock, manages by these means alone to attract more customers to each of its stores than do most of its competitors. Other arts of selling are assiduously studied and practised. Uniform management, analyzing experience on a large scale, contrives more efficient practices in keeping inventory and other accounts. Little-used varieties of goods are eliminated, and stock is standardized to those lines that are really required by consumers in large enough volume to show a profit. In most cases credit is eliminated, and the economies of a strictly cash business are realized.

But the most important savings arise from the chain's relations with production. It becomes an active buyer, not a passive vendee. Buying

standardized articles in large lots, it eliminates the cost of middle selling and handling by dealing directly with the producer. If the chain is wholly independent of the producer, it also exercises its great bargaining power to obtain the most favorable prices possible. And more favorable prices are possible, because the costs of the seller are reduced by large-scale production of a limited number of standardized articles. Often, indeed, the chain buys articles below real cost of production by snapping up lots of remainders, or goods made in plants of excess capacity, which it costs the manufacturer a smaller loss to keep going than to shut down. Some chains, selling a regularized product, have been established by manufacturers themselves as a means of assured outlet. Others, seeking the cheapest possible supply, have gone into manufacture. Those independent stores which have met the large-scale competition most successfully have imitated this shortening of the route of trade and this rationalization of supply by coöperative purchasing from manufacturers. Thus the development of mass distribution intensifies the tendency to standardized mass production, and eliminates competitive waste in selling. In the end it may appreciably cut down the national advertising by competing producers which is calculated to support, or to bulldoze, independent retailers.

How far are these savings shared with the consumers? There is little evidence yet, on this point. Doubtless, a large part of the appeal of the chains to the public consists in the offering of lower prices. Investigators in a recent cost-of-living survey for a trade union were embarrassed to find that, in the region chosen, most of the independent shops which had been visited in a similar study some years before had been supplanted by chain stores, many of whose quotations appeared to be substantially lower than those previously obtained. But this observation was complicated by the fact that so many changes had occurred in types of articles for sale (particularly in women's clothing) and in brands, containers and measures (particularly in food products) that accurate comparison was next to impossible. We may safely say that, although some price reduction has resulted, the major part of the chain stores' winnings out of conquering the morass of distributive waste has thus far gone into profits and expansion. The practice seems to be to sell just low enough to attract trade from the independent fairly steadily, but no lower. This leaves a wide margin of profit. Last year the net profits of the four leading chains whose shares are on the New York Stock Exchange increased 19.4 per cent over the year before, while their sales increased only 9.9 per cent. Most of them have steadily enlarged their profit ratios, while their rapid expansion has been financed either out of their own accumulated savings, or, indeed, to a large extent out of current earnings. Woolworth's last year made a net profit of almost 13 cents on each dollar of sales, after incurring the expenses of establishing 101 new stores. Few \$20,000 retail units did as well.

Independent retailers often attack the chain stores as "monopolies." A few of them—notably the tobacco stores, the drug stores, and the same interests which now control the big candy companies and some of the

restaurants—may perhaps deserve the title. But on the whole the chains as yet do not dominate their respective fields. And as they advance toward doing so they will collide with each other. In most branches of retailing there are anywhere from two to a hundred chains which are at least potential competitors. When these giants grapple the consumer ought really to benefit in price. Then the high costs of the small and wasteful retailer will no longer act as a cushion for chain profits. And the energies of the chains in cutting their costs will redouble.

The end of such a process will probably be, as it has been in other kinds of business, either amalgamation or tacit agreement among the competing chains. Then we shall indeed have a problem of monopoly to consider, especially in view of the fact that many of the chains will control vertical combinations of producers as well.

The objections of the small and losing retailers to this great tide seem puny indeed. Their exhortations to patronize the “neighborhood” store and to keep money in the local community, will be swept aside as they are either eliminated or absorbed into the mechanism. Indeed, the local community will probably benefit in real income, to an extent greater than the drain of profit out of it which will set in. But the psychic objections may prove more obstinate. Another great class of independent persons engaged in private adventure will have become dependent employees, routinized and with no opportunity to advance except by appointment from the higher-ups. We shall have a socialized machinery, as we now have in many forms of production, without social control. And the consumer may need protection, both as to price and quality. How to find variety, a means of expression for the personality, even defense against positive exploitation and degradation, may become here, as it already is in industry, a knotty problem.

QUESTIONS

1. “Laws to protect the consumer are really not necessary because competition will eliminate those producers who try to sell inferior products.” Criticise.
2. “It is a recognized duty of the state to protect the health of consumers by promoting purity in foods and drugs.” Why won’t competition assure the purity of foods sufficiently to protect the health of the consumer?
3. What is meant by the statement that consumers have a “right” to know what they buy to eat and drink? Where does the “right” come from?
4. “Truthful labeling brought about by the enforcement of the federal Food and Drugs Act prevents enormous economic frauds.” What assumption does this statement make about the consumer’s understanding of detailed labels? How valid do you think the assumption is?

5. "The ignorance of the consumer does not really constitute a serious problem because everyone is a consumer, and the possible disadvantages of ignorance are consequently quite evenly distributed." Criticise.
6. Do you look for a marked development of consumers' coöperatives in the United States in the next fifty years? How do you account for the fact that they are at present much more highly developed in Europe than in the United States?
7. Why should certain producers of articles covered by the federal Food and Drugs Act favor such a law when it clearly serves as a restraint upon their freedom in conducting business?
8. Do you think the extensive development of chain stores in the United States is desirable? Answer from the standpoint of the various groups and interests affected, and then formulate your own balanced conclusion.

THE GOVERNMENT AND CONFLICTING ASPIRATIONS FOR MORE INCOME

IN THE struggle of various groups to obtain larger shares of income, a most important factor is the government. It prescribes rules which determine the shares of income to go to different groups, and it diverts a substantial share of the national income to carry on its own activities. This chapter, after indicating the rôle of the government in the continuing contest for larger shares of income, will discuss:

- (1) The rising cost of government in the United States.
- (2) Some standards for judging the significance of government receipts and expenditures.
- (3) Government regulation of economic activity and some factors determining its scope:
 - (a) Directions given by voters.
 - (b) Lobbying.
 - (c) Principles and prejudices of legislators.
 - (d) Court decisions.
- (4) Government ownership and operation of public utility enterprises.
 - (a) Arguments for public ownership and operation.
 - (b) Arguments against public ownership and operation.

WHEN one of his ministers suggested that an action he had in mind might run counter to the laws of the state, Louis XIV, king of France in the eighteenth century, is reputed to have brushed aside the objection with the remark, "The state? I am the state!" His was a simple theory of government. As he conceived the situation, he was the embodiment of all power and all wisdom, and his actions were those of the state over which he ruled with absolute sway.

If the theory advanced by Louis XIV had survived and been incorporated in the government of the United States, the study of our economic problems would have been measurably simplified. It was not so incorporated, and hence, instead of a single fount of governmental wisdom and power, we find the American state a focusing point for the clash of innumerable interests and opinions.

In theory all citizens of the United States have a share in determining the policies of the government, a situation which has led to the characterization of ours as a government "of the people, by the people, and for the people." Of course, it takes a considerable amount of

stretching to make this famous characterization fit the facts. A more accurate but less euphonious statement might be that ours is a government of the majority, by the majority, and for the majority if the majority knows its interests and makes a concerted effort to promote them, and if such action is not in conflict with court interpretations of written constitutions. There are substantial minorities consistently having little voice in formulating governmental policies, as there are majorities which are balked by the limitations upon governmental action imposed by state and federal constitutions and cumbersome legislative machinery.

Local, state, and national government in the United States, however, is sufficiently responsive to the will of the people to make it a battleground of conflicting economic interests. In preceding chapters we have discussed the conflicting aspirations of different groups for more income, and devices used by them in the endeavor to translate their aspirations into reality. Government, as it is conducted in the United States, offers a common meeting place for all of these conflicting groups and many more which have not been specifically treated. First in the gatherings of elected representatives of the people, and subsequently in the courts, groups having conflicting economic interests clash in the effort to bend the activities of the government to promote what they regard as their welfare.

In the continual controversy ranging around governmental activities as they affect economic life in the United States, two general questions are presented. The first is: "What should the government do in controlling economic activity?" The second: "How should the government raise the money to finance those activities to which it is committed?" As is the case with all questions touching upon economic life, these questions are not entirely divorced from one another. The government, in determining how to finance its activities, must necessarily answer questions involving the control of economic activity. Assuming that \$120,000,000 is required to finance certain governmental activities, should that be collected by assessing everyone in the country one dollar, or should every man be expected to pay the same share of his income as every other man, or should those enjoying the greater incomes pay a larger share of them? Regardless of the method chosen to solve this problem, primarily one of taxation, it will involve a decision concerning the kind of control the government wants to exercise over economic life.

Although questions concerning governmental control of economic activity and of taxation cannot be entirely divorced from one another, there is at least a rough separation between them as they are presented in endless succession. The first question which arises is generally that

of what the government ought to do. Should the government build roads, run post offices, regulate railroad rates or hours of labor in manufacturing industries, maintain public schools, operate hydro-electric power generating plants and street-car systems, impose protective tariffs and restrictions on immigration, ban the circulation of birth control information and prize-fight films? These are but samples from thousands of questions which arise regularly about the proper sphere of government.

Some of the questions which arise with regard to the proper scope of government are answered with relatively little controversy. Agreement is fairly general that the government, rather than private enterprise, should be depended upon for road building. There is little serious opposition to government operation of a post office system; and, although such an idea was attacked as dangerously radical when first proposed, there are now few to challenge the propriety of a system of public education. Many activities of the government, however, are bitterly opposed by groups which feel they are or would be adversely affected by such activities. Many large employers of unskilled labor, for example, feel that the government oversteps its proper bounds by restricting immigration and consequently limiting the number of workers available. Owners of electric power companies often resent governmental regulation and are violently opposed to governmental participation in that industry. The army of those who think that the federal government should keep the consciences of its citizens in the matter of consuming strong drink is opposed by another army of those who think that it should not.

Illustrations of clashes of opinion over the proper scope of government could be multiplied to cover almost all human activities. The argument is as old as government itself, and there is no indication that it will be settled this side of paradise. By way of generalization, about the only thing that can be said is that usually those who think they gain by having the government carry on certain activities favor such activities, and those who do not, oppose them. There is no consistent thread of logic running through the continuing argument. Employers, for example, who support a federal prohibition law because it means a larger and more effective working force on Mondays, condemn a federal child labor law as a vicious interference with state's rights. They overlook the state's rights question involved in prohibition because it is convenient to do so, just as advocates of theater censorship firmly assert their constitutional right of free speech and assembly to urge that this right be denied to the theaters.

After the question of what the government should do in a specific case is settled, there remains the problem of financing the governmental

activity involved. This constitutes the problem of taxation, which presents a large and specialized field of study. Should the people who will presumably benefit most directly by the governmental activity in question pay for it, or should the money to pay for it be raised by taxing the citizens according to their ability to pay? That illustrates the type of question to be faced in levying taxes, and, of course, in deciding the more general question of the proper scope of government. The source from which governmental activities are to be financed necessarily has much to do with the decision as to whether or not they shall be authorized.

In this chapter no attempt is made to follow through searching inquiries concerning the proper scope of government or the proper methods of taxation. Both are subjects having their roots deep in philosophy, and their branches so intertwined and involved that they cannot be followed without detailed and specialized study. Here the aim is merely to indicate the extent to which national money income is diverted by the various branches of our government, and to suggest some of the problems raised by the endless controversy over the proper sphere of government. "Government," unless particularly qualified, is used as a blanket term to include state, local, and national government. The first selection is a general statement concerning the rising cost of government during recent years, and some of the major causes of this increase.

THE RISING COST OF GOVERNMENT IN THE UNITED STATES ¹

by Richard Boeckel

FEDERAL expenditures in 1925, exclusive of public debt retirements from foreign repayments and expenditures payable from postal receipts, were more than four and a half times as great as the federal expenditures of 1915.

State expenditures in 1925 were three and a quarter times as great as the state expenditures of 1915.

Local expenditures in 1925 appear on the basis of such data as are available for the full decade to have been about two and a half times as great as the local expenditures of 1915. The most satisfactory statistics for the purpose of estimating the increase in local expenditures are the Census Bureau figures for 146 of the largest American cities. The 146 cities for which such figures are available over a full decade now have a total population of 35,497,709, or about 30 per cent of the total population of the nation.

The following table compares the expenditures of the federal govern-

¹ Adapted from an Editorial Research Report, November 15, 1926.

ment, the states and 146 cities in the years since 1915 for which total figures are obtainable. Index numbers, with the expenditures in 1915 taken as 100, are given in parenthesis.

Fiscal year ending in	Federal expenditure	State expenditure	Local expenditure (146 cities)
1915.....	760,586,802 (100)	494,907,084 (100)	996,061,502 (100)
1916.....	741,996,727 (98)	510,134,299 (103)	.....
1917.....	2,086,042,104 (274)	517,503,220 (104)	1,007,290,346 (101)
1918.....	13,791,907,895 (1813)	565,485,937 (114)	.....
1919.....	18,952,141,180 (2491)	640,403,134 (129)	1,113,599,879 (111)
1920.....	6,482,090,191 (852)	.....	.....
1921.....	5,538,209,189 (728)	.....	.....
1922.....	3,795,302,499 (498)	1,280,319,931 (258)	1,984,322,234 (199)
1923.....	3,697,478,020 (486)	1,310,332,793 (264)	2,066,234,164 (207)
1924.....	3,506,677,715 (461)	1,513,628,021 (305)	2,304,696,000 (231)
1925.....	3,529,643,446 (464)	1,614,562,230 (326)	2,549,149,000 (255)

The federal expenditures shown above for the fiscal years 1921 to 1925 include sinking fund payments ranging from \$261,000,000 to \$306,000,000 annually for retirement of the public debt. The Census Bureau figures on state and local expenditures, on the other hand, do not include funds laid out for public debt retirement.

The state and local figures include the full amounts expended for public service enterprises, without deduction of the receipts of these enterprises which in many cases are self-supporting. The federal figures, on the other hand, include only such expenditures of the Post Office Department, the national government's greatest public service enterprise, as are in excess of postal receipts.

These differences in the elements entering into federal, state and local totals of expenditure make strict comparison of the amounts shown in the foregoing table impossible, although the table shows the relative increases in federal, state and local expenditure with a fair degree of accuracy.

The first important general cause of the increase in public expenditures during the decade 1915-1925 is the rise in the price level. At a higher level of prices more dollars must be paid out by the federal, state and local governments to obtain the same quality and quantity of goods and services as before.

A second factor which has contributed to the growth of expenditures is the growth of population, which has affected the cost of all governmental agencies, central and local. The population of the United States increased from 99,342,625 in 1915 to 117,136,000 in 1925, an increase of 16.1 per cent. Some of the states and many of the counties increased but slightly or decreased in population, but urban communities in general showed substantial increases.

A third general cause of the increasing cost of government is adminis-

trative inefficiency and laxness of legislative methods in appropriating public funds. This factor probably has played a more important part in state and local than in federal expenditures during the years since the war.

Passing from these general or universal causes of increased expenditure, it is necessary to deal separately with the federal and local governments, since the purposes of federal expenditure differ widely from the purposes of state and local expenditure, although there has been a tendency during recent years for the federal government to invade some fields heretofore occupied almost exclusively by the state and local units.

The largest part of the increase in federal expenditures during the decade 1915-1925 is obviously due to the war. Each of the wars in which the United States has engaged, from the earliest days of the republic, has given a notable impetus to expenditure, and once expenditures have risen they have never again receded to the levels of the preceding period.

Each war has left as a heritage a sharp and permanent increase in federal expenditures, due to enhanced public debt charges and pensions, enlarged military and naval establishments, and other similar factors.

Some of the larger items among the appropriations made by the first session of the 69th Congress which may be directly attributed to the last or to previous wars are as follows:

Interest on public debt	\$795,000,000
Sinking fund and other debt funds	515,583,398
Veterans' Bureau—compensation, insurance, ad- justed compensation, hospitalization, etc. ...	579,215,000
Shipping board, Emergency Fleet Corporation..	24,198,574
Total	\$1,913,996,972

Next to public debt charges—in part due to previous wars—the largest item of continuing World War expense, as shown by the foregoing table, is made up of the various outlays for the care and compensation of veterans. At the beginning of the fiscal year ending June 30, 1927, the Veterans' Bureau, which has charge of these expenditures, had 24,397 employees, this number being exceeded only by the employees of the Post Office, the Treasury, War and Navy Departments. Each of these departments, with the exception of the postal establishment, was permanently expanded by the war. A substantial part of the annual Treasury appropriation may be counted as a continuing war expense because of the large increase in personnel necessary to handle the increased tax and public debt transactions resulting from the war.

The civil activities of the federal government have expanded in many directions during recent years, but the most notable expansion has been in two new activities undertaken since 1915. They are coöperating with the states in highway construction, for which \$106,675,000 was appropriated at the first session of the 69th Congress, and enforcement of the

prohibition amendment, for which the appropriations at the same session totaled \$41,713,106. The prohibition amendment, together with state enforcement acts, has also caused increases in the law enforcement costs of many of the states; but the coöperative road construction program has caused the federal government to share with the states a substantial part of the necessary outlays for public improvements.

In submitting the 1927 budget, the Budget Bureau presented the following estimates of proposed expenditures during the year by government functions. The figures give some notion of the general purposes of federal expenditure.

General functions.....	\$ 117,254,866	\$ 117,254,866	3.35 per cent
Military functions.....		1,048,380,448	32.87 " "
National defense.....	570,247,083		
Military pensions, etc.	478,133,365		
Civil functions.....		519,877,856	14.88 " "
Public works.....	195,540,584		
Marine transportation, etc.	65,641,412		
Other civil functions.....	258,695,860		
Non-functional.....		1,708,709,138	48.90 " "
Interest on public debt.....	795,000,000		
Public debt retirement.....	515,583,398		
Trust funds.....	226,598,240		
Refunds.....	171,527,500		
Totals.....	\$3,394,222,308	\$3,394,222,308	100.0 per cent

From the above table it will be seen that military functions and public debt charges, sometimes classified as expenditures on account of past and future wars, accounted for \$2,458,963,846, or 70.3 per cent of the expenditures of the government during the present fiscal year, as estimated at the opening of Congress a year ago.

The increase in state and local expenditures above that due to changing price levels has been caused by the rapid expansion of state and local activities in recent years—in response to the demand for increased public services and improvements that has accomplished the steady rise in the American standard of living.

During the war period the normal expansion of state and local activities was held in check by the urgent requirements of the federal government for men, money and materials for war purposes. While federal expenditures were increasing at a phenomenal rate between 1916 and 1919, the expenditures of states and local communities, when measured in dollars of a uniform purchasing power, were actually declining.

This decline was due primarily to the reduction in outlays for public improvements. Notwithstanding the rapid rise in wages and prices of materials, the expenditures of the states and local governments for public improvements showed a steady decline during the war years.

State and local outlays for public improvements continued at a low

level until 1921. In that year a serious unemployment problem developed, and among the first recommendations of President Harding's conference on unemployment which met late in September, was the following:

"The municipalities should expand their school, street, sewage, repair work and public buildings to the fullest possible volume. . . . The governors should . . . do everything compatible with circumstances in expedition of construction of roads, state buildings, etc."

President Harding in a public statement on October 4, 1921, appealed "to the governors and mayors of the nation that they should take the steps recommended by the conference." The result was immediate. By November 17 the governors of thirty states had reported that within ninety days they would start 6,261 miles of highways which would directly employ 150,000 men. Municipal bond sales for public works in this period broke all records. Large offerings of state bonds were made at the same time. In this way the flow of public improvements which had been obstructed during the war period was suddenly released. Since 1921, state and municipal outlays for public improvements have steadily increased.

The most striking increases in state expenditures over the decade are the related increases of 456 per cent in current highway expense, 353 per cent in outlays for public improvements and 210 per cent in interest charges per capita for the public debt. The most striking increases in local expenditures per capita are in the outlays for education, health and sanitation, public service enterprises and permanent improvements.

The theoretical extremes in government are anarchy and complete state socialism. If anarchy were to prevail, there would be no government at all and consequently no taxes. People would presumably be guided by their consciences or their estimates of their capacity to outdo each other in a free-for-all fight. Under a system of complete state socialism the government would own all of the instruments of production and distribution, direct their use, and apportion the income so derived.

If either of these theoretical extremes were in effect as a scheme of controlling the economic life of a nation or a community, the problem of determining the share of the national income that is to go to the government would be eliminated. In one case the answer would be "none," in the other, "all." Under present conditions governments may lean one way or the other toward these extremes, but in every country the share of national income that is to be devoted to government presents a host of highly controversial issues.

Are expenditures and taxes excessive or meager? The answer depends partly on what the government in question does with the money received, partly on the scheme of taxation in force. The last

article discussed the rising cost of government in the United States and indicated some of the chief reasons for the increase. In the following article standards are suggested which may aid in judging whether expenditures are excessive.

STANDARDS FOR JUDGING TAXES AND GOVERNMENT ACTIVITIES ²

by Ogden L. Mills

HIGH taxes and a high cost of government do not of necessity imply uneconomic expenditures by the community as a whole, in spite of the very natural resentment which the individual feels at the increased encroachment by government on his personal resources. Under complex modern conditions, governments must undertake responsibilities which in simpler days could in safety be left to private individuals; while, on the other hand, it is unquestionably true that the people want, and, theoretically at least, are willing to pay for more and better service from their governments.

As I see it, the problem resolves itself into the questions of what services government under existing conditions can perform better and more economically than private individuals; whether our governments are performing such functions as they have assumed with economy and efficiency; and, finally, whether the cost of these services is being financed in the soundest and most economic way, and so as to distribute the burden fairly.

Generalization is obviously impossible, and these questions can only be answered by careful and thorough inquiry in each particular instance. We would all admit that government can care for the insane and mentally deficient better than if these unfortunates were left to the care of their own families at home, and that it is fairer for the community to assume this burden than to permit it to rest on the shoulders of the individuals affected. But, on the other hand, whether the government should, as is being urged by some, undertake to operate rapid transit and other railroads, and build and operate our hydro-electric power systems, is a very different question, which can be solved only by an impartial and scientific investigation of all the factors involved.

So, in the case of the cost of functions already assumed by the government, the mere fact that we are expending a greater amount of money for a particular service does not necessarily mean that there is waste or extravagance. Whether these exist can again only be ascertained by investigation.

This is likewise true of the problem of financing. Whether an improvement should be paid for from current revenue will depend upon the charac-

² Adapted from an address at the Institute of Public Affairs, University of Virginia, August 10, 1927.

ter of the improvement, the length of its life, whether the capital expenditure is a recurring one or not, the state of the public finances and credit, whether the people are over-burdened with taxes, and whether existing tax rates bring in more revenue than is needed for current purposes. But generally speaking, it is infinitely better to finance a non-productive investment from current revenue than to mortgage the future.

If we study the gross expenditures of state and local governments, we find that in 1925, out of a total of 7,343 million dollars, which included receipts from bond issues, 29 per cent. was spent for education, 20 per cent went for highways, 12.5 per cent for social welfare, 11.6 per cent was devoted to debt service, 9.7 per cent went to defray the cost of protection of persons and property, 6.8 per cent was expended for public service enterprises, and 6.5 per cent for overhead.

While I have said above that the mere size of these expenditures does not of itself constitute a reason for criticism, on the other hand, when there is reason to believe that extravagance and waste exist, to plead the worthiness of the objects, as is so frequently done, is utterly beside the point. No one will deny that we must have highways and an adequate educational system, but whether in both of these fields we are getting a full return on the money spent is the question which remains unanswered today. The real problem, as I see it, is not so much whether we should decrease or increase our governmental activities, but whether we could not get what we are getting today from government for a good deal less than we are paying.

In the second place, I want to call attention to the fact that debt service constitutes a considerable item in the total amount of state and local expenditures, and that the sum expended for interest and debt retirement in 1925 was about two-thirds the value of the total bonds issued that year. In other words, states and localities have made such free use of the borrowing power that the billion and a third of bonds which they sold in 1925 left them no very great margin over the amount they were obliged to pay for debts already incurred.

When this point has been reached, it is obvious that no real benefit is being derived from the borrowing method, even in the way of relief from present tax burdens, and that in the immediate future, if bonds continue to be issued at their present rate, this method of public financing will prove infinitely more expensive than had we financed capital expenditures, more particularly those of a recurring kind, from current revenue. The ultimate cost of financing public expenditures by borrowing is one which politicians, generally speaking, refuse to take note of, and the subject is a little too complex for the average man to bother with. It constitutes, nevertheless, an enormously important problem. For purposes of illustration, let us consider the cost of financing \$10,000,000 of public improvements annually by the issue of 25-year 4-per-cent straight serial bonds. During the first year, \$10,000,000 will be received from the sale of the bonds. The interest amounts to \$400,000, the cost of redemption to

\$400,000, or a total debt service of \$800,000; thus showing an apparent saving on the cash outlay basis of \$9,200,000 over the cost of financing from current revenues. By the end of the tenth year, the increasing cost of the debt service will have reduced this apparent saving to \$2,720,000 a year, and at the end of the fourteenth year it will have disappeared entirely. Thus, in the fifteenth year, debt service charges will amount to \$10,320,000, or \$320,000 in excess of the amount received from the sale of the bonds. In the twenty-fifth year the debt service will have grown to \$15,200,000, so that the state will actually be paying out \$5,200,000 more than the cost of financing from current revenues. At the end of the twenty-fifth year, the state will have received \$250,000,000; it will have paid out in debt service \$218,400,000; showing an apparent saving of \$31,600,000, which is much more than offset by \$120,000,000 worth of bonds still outstanding that will call for an additional expenditure of \$161,600,000 until finally retired. The total cost will amount to \$380,000,000, as against \$250,000,000 by current financing. After the tenth year the saving becomes negligible, and after the fourteenth year the borrowing method actually will result in higher rather than lower taxes.

We should find out whether our states and localities are not making too free use of their credit, and whether it would not be wiser if more strict regard were had for the pay-as-you-go principle. Let me again emphasize that, in spite of their huge annual borrowing, the money received by the states and localities from this source, even today, is largely absorbed by the cost of the service of the debt which they have already incurred. That fact alone seems to me to be significant enough to serve as a warning that the time has come to examine not only the cost of government but existing methods of financing the cost.

The conclusions which I draw from all this are that we are confronted with three very definite questions—first, whether the costs of our government are excessive, judged from the standpoint of whether we could not get the present service at lower cost; secondly, whether existing methods of financing these costs are sound economically; and, finally, whether our tax systems are not in need of a thorough overhauling in the interest of a fairer allocation of the burden. There is no one answer to these questions.

There are several ways of seeking an answer to the question, "Are the costs of our government excessive?" One suggestive, but not conclusive, method of procedure is to compare the share of the national income diverted for governmental purposes with some of the shares devoted to other purposes. Such a method is followed in the next selection, which also indicates some of the results obtained from the diversion of income by the government. In connection with a consideration of "results obtained," particular attention should be devoted to the importance of war as a cause of federal expenditures.

GOVERNMENT RECEIPTS AND EXPENDITURES—"VIEWED RELATIVELY"³*by Joseph B. Eastman*

USING the best estimate I can obtain of the national income, the federal, state, and local tax burden consumes a little more, perhaps, than 10 per cent of the income. In 1923 the National Industrial Conference Board estimated that the figure was 11.5 per cent. In 1924 the national taxes alone of Great Britain and France absorbed between 18.5 and 19 per cent of their respective national incomes.

Now 10 per cent is a sizeable burden and one not to be underestimated. But let us examine it from the point of view of relativity. In 1925 the gross receipts of the steam railroads, electric railways, and express companies for transportation were almost precisely \$7,500,000,000, or, in other words, the transportation burden was about the same as the tax burden. Moreover, this transportation burden ultimately falls upon consumers in direct proportion to their consumption, whereas the tax burden may be, and to a certain extent is, apportioned according to the ability to bear. The best estimate that I have been able to obtain also indicates that in 1925 the national expenditure upon passenger automobiles, exclusive of motor trucks, was at least \$7,500,000,000, and probably considerably more.

Let us see, as the next step, what the nation obtains for its tax payments. In his annual report for 1925 the Secretary of the Treasury made this statement:

"In this connection it is of interest to point out the proportion of government expenditures which are due to war. While it is not possible to segregate entirely all expenditures which might fall in this category, if we add to the disbursements for public debt retirements interest on the debt, War, Navy, Veterans' Bureau, and pensions, other extraordinary expenditures, such as adjusted compensation and the increased outlays by the Treasury, the expenditures which are directly or indirectly attributable to war and the national defense compose over 80 per cent of total federal expenditures. The amounts spent by this government in aid of agriculture and business, for science, education, better roads, and other constructive efforts are insignificant when compared with outlays due to war and national defense."

The enormous expenditures in connection with past wars emphasize the wisdom of retiring the national debt thus incurred as rapidly as possible during times of industrial prosperity. The amount spent by the federal government on matters of civil administration having no connection with war is not in excess of \$800,000,000 at the outside, and more than \$150,000,000 of this amount is obtained from sources other

³ From an address delivered at the 38th Annual Convention of the National Association of Railroad and Utilities Commissions, Asheville, North Carolina, November 9, 1926.

than taxation. Relatively, such expenditures are not large, and their amount is especially interesting in view of the claim so often advanced of late that a centralized national bureaucracy is gradually swallowing up all the functions of government. The possible total of \$800,000,000 is the same as the amount which Mr. Will Hays estimates is now being spent annually on the movies. In contrast, also, the national expenditures on tobacco were about \$1,250,000,000 in 1923, and on candy and chewing gum, about \$540,000,000.

The total tax receipts of the federal government in 1925 used for civil purposes, added to the estimates of state, county, municipal and similar taxes which I have already given, amount to about \$5,000,000,000. For this amount the nation obtained public education; police and fire protection; sewage disposal; public health protection; care of the insane; maintenance of the judicial system and penal institutions; the construction, maintenance, care and lighting of streets, highways and public parks; the maintenance, improvement and protection of harbors and waterways, including the lighthouse service; scientific agricultural research and the wide dissemination of the information resulting therefrom; the maintenance of an adequate system of currency; forest protection and the development of irrigation; the census and the collection and dissemination of elaborate statistical information of many varieties; the maintenance of the consular and diplomatic service and a thousand and one other public utilities, and the enforcement of the Volstead Act. I submit that when the real story is told there is no reason to fear a comparison of the results obtained from these expenditures of tax receipts with the results obtained from the expenditure of any other portion of the national income.

A statement concerning the share of the national income diverted by the government in the form of taxes and receipts from government-operated enterprises does not adequately portray the significance of that agency as a factor in the division of income. That is because the government not only diverts income to carry on its work but also engages in many activities having a major bearing on the division of that share of the national income to which the government makes no direct claim. These activities are of two general types. One is the formation and administration of laws to regulate economic activity. The other is participation in various types of enterprises.

In previous chapters various forms of government regulation of economic activity have been considered. Studying prices, we noted government regulation of economic activity by means of tariff, public utility, and antitrust laws. In discussing group endeavors to obtain larger shares of income, we saw how at the behest of wage workers and their allies, the government has established rules governing such things as compensation for industrial accidents, hours of labor, and working

conditions. We also examined some government regulations designed to protect consumers. In the case of the farmer, we noted efforts being made to secure special legislation to govern the marketing of farm products. These, of course, gave but little indication of the full extent of government regulation which generally starts at the cradle, with the ministrations of a duly licensed physician or midwife, and does not end until the human body, usually attended by a registered "mortician," is lowered into a regulated graveyard.

How far should the government go in regulating economic activity? That is a question which gives rise to the widest divergence of opinion, as has already been suggested. Some hold that there should be no government at all, while others would have the government direct all economic activity. Many accept neither of these two extreme views. As a result of varied opinions, there is a constant struggle over proposals to expand or contract the scope of government regulation, with legislatures and courts the focusing points of the conflict.

In the United States the group which holds that there should be no government at all is negligible. It is composed of two strangely divergent types of people, one a company of very gentle souls who believe that there is enough cement in the spirit of brotherly love to bind society into an orderly whole, the other a body of bomb throwers intent upon a violent wrecking of existing institutions. While those who seek to eliminate government by violence are frequently the subject of much public attention, their effective strength to carry out their aim is insignificant.

Agreement is almost universal on the necessity of some government to preserve the peace and make people obey certain general rules regarded as essential to an organized community life. Government activities in the United States, however, have long since expanded far beyond that range. Legislatures have been prevailed upon to pass a great variety of regulatory laws, and courts, interpreting written constitutions, have allowed most of these laws to stand.

Under our system of government, when any group thinks that it is suffering from an economic disadvantage, it has the possibility of appealing to the government to eliminate this disadvantage by legislation. In order to make a successful appeal for legislation, several steps are required. One is to identify passage of the legislation with the promotion of the public welfare. At the present time the art of justification is so highly developed that this is not generally difficult. Farmers, receiving low prices for their products, easily identify this with a threat against "the backbone of the country," just as high-tariff seekers associate their claims with nothing less than the assurance of the continued sovereign existence of the country.

Another step toward the passage of legislation is to convince those holding legislative posts that it should be approved. This may be done in a number of ways. One is to secure pledges from candidates for legislative posts that they will support the laws in question. The willingness of prospective legislators to make such pledges depends, in large measure, upon their estimates of the necessity of committing themselves to secure the votes required for election. Generally, candidates and political parties frame platforms outlining the types of governmental activity they propose to approve and promote. At one time party platforms could be depended upon by voters to indicate roughly the type of direction over economic activity that the candidates subscribing to it would seek to put into effect. During recent years in the United States, political platforms have become largely decorative rhetoric, having only casual, if any, bearing on the parties and candidates endorsing them. Each of the major parties follows the time-honored custom of adopting a platform, but its pronouncements have no particular relation to the performances of the party. "Usually the platform is clear and definite upon only a few issues, and the rest is made up of obscure statements, which represent dodging and straddling, and which may be differently interpreted to fit the interests of different classes of voters or different sections of the country. Issues which cut across party lines are generally avoided. Upon other issues which are of vital interest to the voters, the platform may lean one way while the candidate leans in the other."⁴

During some periods, differences between the two major political parties on national issues have been clear-cut and decisive. For a long time the Democrats and their predecessors stood for a policy of free trade and, when they came into power, generally proceeded to revise the tariff downward in no uncertain fashion. The Republicans, on the other hand, stood for a high protective tariff and put their preachments into practice whenever they had an opportunity. Now Democrats continue to make speeches about the blessings of free trade, but many of them seize every opportunity to vote for higher protective tariffs on commodities important to their communities. As manufacturing enterprises move South, the enthusiasm of the Democratic party for free trade wanes.

Another issue on which the major parties are traditionally divided is that of "states' rights," the Democrats theoretically holding for a maximum of local government and the Republicans for a strong and uncompromising federal government. Today Republicans, including a Republican President, are among the most sturdy advocates of

⁴ "Major Party Platforms," an Editorial Research Report by Richard Boeckel, January 21, 1928.

"states' rights," and Democrats are frequently found leading efforts to increase the strength of the federal government.

The significance of the appeal for more "states' rights," it should be noted, frequently depends upon the nature of decisions of the United States Supreme Court in interpreting the "commerce clause" of the federal Constitution. It is provided by the Constitution that "Congress shall have the power to regulate commerce . . . among the several states," but no definition of such commerce is found in the Constitution. The Supreme Court, in the course of deciding what is and what is not "commerce among the several states," has rendered many decisions expanding the scope of the phrase. When any particular activity is declared by that court to be "interstate commerce" it is thereby removed from the jurisdiction of the several states. Consequently, an appeal that the states should be allowed to control such an activity becomes, as a practical matter of fact, an appeal for freedom from government interference with it.

Unable to choose legislators favorable to their projects on the basis of party platforms or traditions, some organizations look up the records of several candidates and advise their membership of the views these candidates hold on economic questions. The following bits of information and advice are taken from "The Voter's Question Box" maintained by the weekly publication *Labor* when elections are in the offing.

STRICT ACCOUNTABILITY ⁵

POLITICALLY Senator ——— is living in the Middle Ages. For example, he gravely told the Senate that the women's organizations which were urging the passage of the maternity bill for the purpose of assisting poor mothers got their inspiration from Moscow. He is listed as a Democrat, but always votes with the Republican "Old Guard." He is a good man to retire.

Congressman ——— has been in the House about fourteen years. He has a 100-per-cent labor record. Railroad workers should remember ——— because he stood by them on the Howell-Barkley Bill when they needed friends.

Congressman ———, Republican, is serving his second term from the Fourth New Jersey district. He opposes all progressive legislation and seems to be a sort of lecturer for the Power Trust.

Senator ——— should be re-elected. He has an excellent labor record and has been "right" on all progressive measures. Six years ago ——— entered the lists against XY, a renegade Progressive, who had slipped an anti-strike bill through the Senate. No one imagined that ——— had a chance. He fought a lone fight, receiving practically no

⁵ From *Labor*, March 3, 1928.

outside support, and won by a narrow margin. During his six years in the Senate he has demonstrated that he is possessed of first rate ability and that he approaches public questions from the point of view of the best interests of all people.

. . .

Other organizations, although not generally by methods so outspoken as that just indicated, also seek to secure representatives in public office who they think can be trusted to protect their interests. In certain cities, for example, endorsement by the Chamber of Commerce assures a candidate the support of virtually all of the tradesmen, frequently sufficient to secure his election. In other communities, approval by particular industrial interests may be the prerequisite to election, or the candidate may be forced to avow his undying allegiance to the "wet" or "dry" cause.

As a result of the methods of naming public officials in the United States, they are frequently committed in advance to certain definite legislative policies. Because of the general political apathy in this country, however, and the maze of issues presented at every election, legislative representatives usually reach their posts without being specifically committed on many of the legislative problems with which they are certain to be confronted. Consequently, they are presumed to be open to persuasion. This is the theory on which legislative debate is conducted, and it is also the assumption upon which the practice of "lobbying" proceeds.

The effort to secure or forestall legislation by public debate is generally reported at length in the press. The art of lobbying is much less frequently the subject matter of the "news." In the following selection the character and method of some of the lobbies at Washington are described.⁶

LOBBYISTS AND LOBBYING ⁷

by Richard Boeckel

AMONG the lobbyists and legislative agents regularly stationed in Washington, three main groups may be distinguished. The first group is made

⁶ The definition of "lobbyist" and "lobbying" is the subject of much debate. The United States Senate has approved legislation designed to give more publicity to "lobbying" in which a "lobbyist" is defined as "one who shall engage for pay to attempt to influence legislation by the National Congress," and "lobbying" is defined as "any effort to influence the action of Congress upon any matter coming before it, whether it be distributing literature, appearing before committees of Congress, or interviewing or seeking to interview individual members of either the House of Representatives or the Senate."

⁷ Adapted from "Regulation of Congressional Lobbies," an Editorial Research Report, March 7, 1928.

up of those who are engaged in obtaining pensions and legislative provision for the settlement of claims against the national government. The operations of this group seldom come to public attention. Frequently the lobbyist will work on a contingent basis, receiving payment only if his efforts result in success.

A second and more important class of lobbyists is made up of persons employed at fixed salaries by groups which have an economic interest in the action taken by Congress upon public bills. This group includes the numerous industrial and financial lobbies, and the lobbies of organized labor and the organized farmers as well. Some of the lobbyists may represent particular corporations of great size, but for the most part they are representatives of nationally organized economic groups. Among the organizations of this type which engage continuously or from time to time in efforts to influence legislation are the following:

- National Association of Manufacturers
- United States Chamber of Commerce
- National Industrial Council
- National Lumber Manufacturers' Association
- Associated General Contractors
- American Road Builders' Association
- American Federation of Labor
- American Farm Bureau Federation
- National Grange, Farmers' National Council
- American Bankers' Association
- Investment Bankers' Association
- American Taxpayers' League
- American Association of Railway Executives
- Joint Committee of National Utility Associations
- American Mining Congress
- National Coal Association
- National Petroleum Association
- Portland Cement Association
- National Automobile Chamber of Commerce
- National Merchant Marine Association
- American Drug Manufacturers' Association
- National Council of American Cotton Manufacturers
- Radio Manufacturers' Association
- Institute of American Meat Packers
- National Fertilizer Association
- United States Sugar Association

The American Legion, when lobbying for such measures as the bonus bill, and various organizations of government employees, when lobbying for increases in the wages of their members, are to be classed with organizations seeking to win economic advantages for particular groups.

A third class of lobbyists is made up of the salaried representatives

of various reform, peace, women's and other organizations, whose memberships can expect no direct economic benefits from the activities of their legislative agents. Organizations of this type include the National League of Women Voters, the National Woman's Party, the American Peace Society, the National Council for Prevention of War, the Foreign Policy Association, the League of Nations Non-Partisan Association and the National Civil Service Reform League. The Anti-Saloon League, the Methodist Board of Temperance, Prohibition and Public Morals, the Association Against the Prohibition Amendment and the Ku Klux Klan also maintain active lobbies which are interested in measures involving moral or other principles rather than economic advantage.

The People's Legislative Service, organized under the auspices of the late Senator LaFollette, is sometimes spoken of as a "people's lobby." Its principal work is the preparation of material for the use of members of Congress belonging to the progressive group, although it may lobby among other members on occasion for measures advocated by that group. The People's Legislative Service, the National Woman's Party, the Anti-Saloon League, the Methodist Board of Temperance, Prohibition and Public Morals, and the railroad brotherhoods all have buildings or maintain offices within a block of the Capitol which serve as bases of operation for their political and lobbying activities.

In its report on the Caraway Bill to provide more publicity on lobbying, the Senate judiciary committee states that there are representatives of organizations in Washington "who are interested in the betterment of classes,"—and who in many instances "perform a real public service."

"On the other hand," the committee reported, "there is a large number of people who pretend to represent 'associations' who are lobbyists pure and simple and in the most offensive sense of that term. They prey upon the credulity of people who have an interest, or fancy they have an interest, in what Congress shall do. They are utterly without influence. They obtain money from those whom they pretend to represent under false pretenses, and in reports on their activities resort to downright mendacity. In the telephone directory of Washington there appear between 300 and 400 alleged associations, the larger number of which—90 per cent of which—are fake associations organized for the sole purpose of profit for those who are in Washington."

The fake organizations, according to the committee report, include fake scientific associations, fake religious organizations, fake agricultural associations, fake temperance associations, fake associations opposed to prohibition. "In fact, every activity of the human mind has been capitalized by some grafter." Ninety-nine dollars out of every hundred paid by the public to these organizations "go into the pockets of the promoters." The committee called attention to the names of some of the telephone directory listings: American Pedestrian Protection Association, American Federation of Organizations for the Hard of Hearing, American Taxpayers' League, Antiblue Party, Anticigarette Alliance, Better Understanding between Industry and Agriculture Association,

Buyers' Discount Association, Citizens' Relief Association, Constructive Credit Association, etc.

The first duty of the *bona fide* lobbyist in Washington is to serve as the "eyes" of the interest, group or organization he represents. He will sometimes compare his duties to those of the scout aviator who observes the movements of the enemy and directs the fire of his own side. His own side may be on the offensive in that it is seeking the enactment of a particular piece of legislation or the confirmation of a presidential appointment supposed to be to its advantage, or it may be on the defensive, aligning its forces in opposition to particular measures and men.

The lobbyist's activity may be largely confined to presenting the side of the case he represents before congressional committees in public hearings, or it may extend to soliciting the votes of individual members and bringing pressure of various sorts to bear upon them to vote as he desires. The services of lobbyists before congressional committees are generally acknowledged to be of great assistance in the framing of legislation dealing with complex subjects—subjects upon which the legislators themselves may have little or no accurate information.

The Washington telephone directory lists 2072 lawyers and law firms. Washington has a larger number of lawyers per thousand of population than any other city in the country. Among them are to be found most of the highly-paid lobbyists for business interests and organizations. Frank Kent wrote in 1923 that one lawyer drew an annual salary of \$75,000 and was "worth a good deal more than that to the protected interest he represents." More recently Edward McGrady, the chief labor lobbyist, has stated that he knew 100 lobbyists who received salaries in excess of that of the President of the United States.

Firms of lawyers in Washington are said to offer their services in the drafting of a bill for purposes they recommend to their clients, having it introduced, watching its progress, arguing for it before committees, preparing written statements, and finally, after it has been passed, defending its constitutionality, which they guarantee. The fees for such services are said to be very high, often running well in excess of \$100,000.

The old-fashioned lobbyist depended in some cases upon friendship, and in others upon bribery and intimidation, to effect his purposes. His effort was always to "get something on" the member he wished to influence, or to place the member under obligation to him or in his debt. The present-day lobbyist depends for his effectiveness upon very different sources of power. In the usual case he has no personal power to coerce, if members cannot be persuaded by arguments; but the power to coerce exists in the organizations or interests he represents.

When the Joint Committee of National Utility Associations was organized shortly before the convening of the 70th Congress with former (New York State) Senator Josiah Newcomb at its head, it was announced in the press that a large power lobby had been set up in Washington. The committee represented the National Electric Light Association, the American Electric Railway Association and the American Gas Associa-

tion. Its first purpose, as announced by former Senator Newcomb, who had headed power lobbies in Washington in 1916 and 1920, would be to bring about the amendment of the Walsh resolution to have the investigation it proposed of public utility financing made by the Federal Trade Commission, instead of by a special committee of the Senate. Thereafter, the committee would give some attention to the issues involved in the Boulder Dam and Muscle Shoals contents.

The first of the announced purposes of the Joint Committee of National Utility Associations was accomplished on February 15 when the Senate voted that the investigation should be made by the Federal Trade Commission. It was asserted in the debate that the most powerful lobby in the history of the country had been brought to Washington to oppose any investigation in which Senator Walsh would have a hand. Various of the Democratic senators who voted with the regular Republicans afterward asserted that so far as they knew there had been no lobby in Washington, that their votes had not been solicited by either side.

The case against a Senate investigation was ably presented before the Senate Interstate Commerce Committee in the first instance by former Senators Thomas and Lenroot. The real work was done, however, by unpaid volunteers. Every important public utility man in the country, with one or two exceptions, was in Washington while the Walsh resolution was before the Senate. Leading bankers also visited senators in their offices in opposition to the measure. These men, if not contributors to campaign funds in every instance, generally are in position to exert considerable influence for or against a candidate for public office or a nomination to run for public office. In the absence of an overwhelming public opinion on the other side, a lobby campaign of this sort is practically irresistible.

Neither the quality of the debate nor the skill or force of lobbying activity is necessarily a controlling factor in determining the votes of legislators on questions of regulating economic activity. Possibly even more important are the deep-seated convictions about the proper relations of government to business and industry which legislators carry into public office with them. Some legislators hold that the government should confine itself scrupulously to protecting property and preserving the peace. Others believe that the government should intervene whenever it appears necessary to balance the economic power of different groups, and preserve what seem to them the essentials of economic opportunity.

How do legislators come to have such conflicting points of view? That is a question which can only be answered by a searching study of their lives and intellectual experiences. If a particular legislator comes from a family of great wealth, or if as a lawyer he has repre-

sented very large corporate interests, it may be that his views on legislation will be affected by his experience and reflect the attitude of those who own large amounts of property. If a legislator is recruited from a trade union group or has made his living as a dirt farmer, his views may be influenced in a different way by his earlier experience.

In the United States the framework of political life is still based largely on the assumption of the Declaration of Independence that "all men are created equal." Both of the major political parties proceed on the theory that, if placed in power, they will represent all of the varying economic interests in the country, rather than those of any particular group. Consequently, major economic issues are continually slurred over in political campaigns, and most candidates run as Republicans and Democrats, rather than as representatives of large property owners, farmers, or wage workers.

As a matter of practical fact, however, legislators do rather consistently represent the interests of particular economic groups, and when legislation affecting these groups is presented they line up without reference to their supposed party allegiance. The result is that in the United States there are many alignments of legislators which cut right across party lines. How this comes about can easily be appreciated by noting the sharply conflicting views on economic questions presented by two men elected to serve in the United States Senate as Republicans.⁸

IF I WERE PRESIDENT ⁹

by Senator Robert M. LaFollette

SINCE the Civil War the government has bestowed privileges and fostered through administrative favoritism a new system, under which a few men are enabled to live on the fruits of the labor of others. It is a system which I have fought continuously for the last thirty years.

When I say that the prices paid by the American people today for food, light, clothing, and everything which goes to warm, house, shelter and clothe the human family are fixed by great corporate combinations of wealth, I merely repeat what every intelligent man and woman knows to be true.

⁸ The statement by the late Senator LaFollette was made when he was seeking election to the presidency as a Progressive candidate. At that time, however, he had served in the Senate for eighteen years as a Republican. His son, who succeeded him in this office on a platform essentially the same as that outlined here, was elected as a Republican. So also was Senator Reed of Pennsylvania, who held radically different views on economic questions.

⁹ Adapted from a speech inaugurating the late Senator LaFollette's campaign for the presidency of the United States in 1924. Published in *LaFollette's Magazine*, September, 1924, pages 133-135.

This power to fix prices, combined with the control of natural resources, of transportation and credit, has lodged in the hands of a relatively few men a kingly power to amass enormous wealth by levying tribute upon the people.

This system has become so deeply rooted in American life that the two great political parties which have shared control of the government since the Civil War now recognize it as beyond the reach and control of the law. Under their administration, this system has extended its power until today it not only controls the economic life of the nation, but rules the very agencies of government which the people have set up to restrain it.

It has not only been left free to oppress the farmer, the wage-earner, the consuming public and legitimate business—it has been permitted to employ the powers of the government itself to encroach upon the liberties, prosperity and happiness of all.

By the monopoly system I mean the sugar monopoly, which has its representatives on the Tariff Commission, which prevented that commission from promptly reporting a reduction in the tariff duties on sugar and which, under the false pretense that it was protecting the sugar-beet farmers, used the tariff to increase the price of sugar to the public, with the active aid of the President, the Secretary of Commerce, and the responsible leaders of this administration in the United States Senate.

I mean the oil monopoly, which dictates the prices on gasoline and oil throughout the land. It strangles independent business enterprise by cut-throat competition. It resorted to outright corruption of a member of the President's Cabinet to wrest the naval oil reserves from the public domain. It has systematically defied the laws and the courts of this country for a generation, and through its agents has for many years contributed large sums of money to both Republican and Democratic campaign funds.

I mean the banking combine, which, through its control of the Federal Reserve Board, arbitrarily fixes interest rates and controls credit in the interest of the big monopoly system. It initiated a policy of "deflation," causing a shrinkage in farm prices of more than fifteen billion dollars between 1920 and 1924, and a loss to the farmers in the value of their land and other property of more than twenty billion dollars.

I mean the transportation monopoly which dictated to Congress the terms of the Cummins-Esch Law, exacting extortionate railroad rates from the farmer, the business man and the consuming public, and which has been powerful enough under the administrations of both political parties to acquire a dominant influence over the Interstate Commerce Commission.

These are only a few of the combinations which go to make up the monopoly system, which is protected by certain laws and by the failure to enforce others, and whose power is now so great that both of the old parties have become merely the instruments of its will.

These monopolies, each having acquired economic control by combina-

tions in its own field, were drawn together by common interest. They early saw the vital importance of the control of government.

They built up a perfect political system. The system controls the government at Washington. It contributes the millions expended in the national campaign by both political parties.

It elects the President and the Congress. It makes and administers the laws. Year by year, through these laws—enacted by an obedient Congress, administered by a pliant President, and enforced by an appointed court—the system augments its power and the enormous wealth of its groups,

I believe that if the people can once regain control of the machinery of government we can stem the tide toward economic absolutism. Although we cannot undo in a day the evil which Republican and Democratic administrations have done in a generation, I am convinced it lies within the power of a Progressive administration to achieve immediate and substantial results in the interests of all the people.

As a member of the United States Senate I have observed that he who is willing to fight in the public interest is denounced as a "dangerous radical" or a "foolish visionary," while he who becomes the willing servant of selfish special interests soon establishes a reputation as a "sound, courageous, constructive statesman."

Nothing is so safe in a political campaign as to generalize about "honesty" and to treat the importance of it in public office as a new discovery, unless it be to commend as a virtue the "frugality" most of us practice as a necessity because we are the victims of the monopoly system fostered and protected by both the Democratic and Republican parties.

If I were President of the United States, I should proceed to enact valid, remedial, constructive legislation, and to initiate executive policies based upon sound economic principles, and applied with the best expert advice obtainable.

I should use the appointive power of the Executive to free every department of the government from the control of special interests.

I would place at the head of the Department of Justice and in the office of every United States district attorney throughout the land men who would vigorously enforce all the laws. I would instruct them to bring and prosecute criminal actions against every profiteering monopoly which violates the anti-trust laws with the same vigor which I should require of them in the prosecution of a bootlegger.

Without the enactment of additional federal statutes, I am convinced that great progress could be made in restoring this government to the service of the public, through honest and vigorous enforcement of existing law.

I recognize, however, that the body of our statutes is so honeycombed with special privileges to favored interests that in order to accomplish lasting benefits for the people it would be necessary to repeal or amend many laws now on the statute books.

As an aid in curbing the power of great monopoly interests to amass unjust profits at the expense of the public, I favor a reorganization of the Federal Trade Commission and the Tariff Commission, and would enlarge their authority and strengthen the laws, organic as well as statute laws, specifically empowering them to ascertain and make public the costs of production and profits in oil and gasoline, coal, steel, and other basic industries.

Under both Republican and Democratic administrations, private interests have wrongfully increased their control of the natural resources on the public domain. I would take steps to recover and to conserve these resources and to make available to the people at cost the light, heat and power which can be developed from the water-power sites now owned by the government.

It is apparent to every thoughtful citizen that unjust policies of administration and the enactment of unjust laws by Republican and Democratic administrations have brought the farmers of this country face to face with an emergency which the general welfare demands should be met by emergency measures.

A Progressive administration would speedily relieve the farmer from the burden unjustly laid upon him at present. Under the infamous Fordney-McCumber Tariff Act the price of everything he buys, including every piece of machinery on his farm, every utensil in his house, and the clothing worn by himself and his family, has been greatly increased. His labor cost has also tremendously increased as the result of tariff legislation, while the laborer, on account of the increase in the cost of living for himself and family, is not benefited by the increased wage. The present tariff should be revised downward in the interest of the farmer and laboring classes in spite of the protests of the few great concerns which have multiplied their profits under it.

I am convinced that a Progressive administration, free from the control of the interests which unjustly profit at the expense of both the farmer and the consumer, could aid the farmers of every section in establishing a coöperative system, free from the control of the government, which would afford them every advantage in marketing their products at a fair profit above the cost of production.

I deplore efforts by those who would perpetuate the present inequitable conditions to provoke class prejudice between the farmers and the wage-earners of the country.

I do not claim that the interests of the farmer and the industrial worker are always identical. But I do maintain that their prosperity, happiness and economic freedom are menaced by a common foe, and that they must take common political action to meet it.

The spokesmen of entrenched privilege scoff and sneer at the aspirations of the organized workers of this country. These men, who prate of class legislation whenever labor demands its just rights, know little of the character of the labor movement or of the true principles of our government.

No humane, progressive law has been enacted by Congress in a generation which has not had the support of the organized workers of this country, speaking through their representatives at Washington.

It will be found, upon a fair analysis, that every special measure which has been strong enough to command the support of labor has been of the broadest public interest and benefit.

"IF I WERE DICTATOR"¹⁰

by Senator David A. Reed

IF I were a dictator, I would abolish the Federal Trade Commission this morning, the Shipping Board tonight and the Interstate Commerce Commission tomorrow.

Fussy government meddling in other men's business has brought us to the plain inevitable conclusion that it is time for this country to get back that self-reliant freedom on which Anglo-Saxons have always succeeded.

I am fully convinced of the soundness of the old axiom that "the least government is the best government"; that there is a point beyond which the immediate benefit of governmental action is outweighed by its meddlesomeness and its paternalistic interference with the liberty of the individual.

To take a homely illustration: None of us likes to see the grass plots of our public parks trodden bare. Each of us feels a certain sympathy with the erection of signs here and there cautioning people to keep off the grass; but it is conceivable that most of the beauty of the park may be destroyed for everyone by making such signs too big and by sticking them around in too great abundance.

Now that is what I think we are in danger of doing in all our governmental activities in the United States. We are carrying the restrictions too far. We are harassing everybody too much in our efforts to forestall every evil. We are pestering innocent persons too often by our attempts to catch the crook. We are inspecting too minutely; investigating too far. Our government has become too much of a busybody. We have too many regulatory commissions—too much government on every hand.

The average citizen rises in the morning and washes in water furnished by a company regulated by the public service commission. His breakfast is cooked by gas, similarly owned or regulated by the government. His breakfast bacon has been inspected by agents of the Department of Agriculture to see that it conforms to the pure food law. He rides to work in a trolley or on a railroad whose every action is controlled by various public service commissions.

The first lien on his day's earnings belongs to the income tax collector, so he must keep his books as directed by the Secretary of the Treasury.

¹⁰ Adapted from an article in *Nation's Business*, August, 1926.

The bank to which he goes to make a deposit or get a loan is inspected by the government and lives in daily terror of the Comptroller of the Currency. During the day he is visited by a field agent of the Treasury Department who pries into and criticizes his most intimate business affairs, and perhaps by a representative of the Attorney-General in Washington who subpoenas him to testify before a distant grand jury in another state in a proceeding in which he may have little or no interest.

Towards the end of the day his wife calls for him in the family automobile, duly licensed by the state government, and they drive slowly home, watching carefully for the signals of the traffic police and stopping on the way to buy a fresh supply of gasoline on which they pay a government tax of three cents a gallon. After a dinner of beefsteak which has been duly inspected by government agents at the packing house, they go to the movies to see a film which has passed the state censor, and finally return home blissfully thinking they are free citizens of a free country.

Business twenty-five years ago in a large measure was run by the men who owned it. There was full and free scope for individual initiative. The man who was assertive, forward-moving, daring, put across the schemes he had in view. If he won, he kept his winnings. If he lost, he paid his losses and started again. Nothing but his own self-interest and a comparatively simple moral code operated to regulate his policies and activities. New businesses were established and grew great almost overnight. Our country's natural resources were tapped as never before and seemed to pour out inexhaustible riches. We were on the upgrade. Economy mattered less than imagination; carefulness was less important than enterprise. We could afford to carry the growing burden of government and we could look unmoved on each new governmental experiment, for whether it succeeded or failed our broadening shoulders were strong enough to bear the cost.

But now, according to the economists, we have a different outlook before us. We have ahead of us a considerable period of excessive competition, not only within our own country where a productive capacity beyond our normal needs was brought into existence by the demands of the war, but with other countries which must sell in competition with us if their industrial life is to continue.

Before we entered upon the present era of wholesale government regulation, our railroads rendered a service that was remarkably fine—the best of all the railroads in the world. They rendered it for a rate that was lower per ton per mile than was charged in any other country in the world. They competed in furnishing service, and competition kept the service good and held the rates down. The best young men we had in America went into railroading as a profession for life. The executives of the railroads devoted themselves to the business of railroading, and did not spend so much of their time trying to arrange to have the Interstate Commerce Commission made up of men who would be kind to the carriers,

as some of them do nowadays. They were quite willing to stand upon their own merits.

Since then, we, meaning the government, have undertaken to show the railroads how to run their business. We have adopted grandmotherly policies of regulation, so that all of a railroad's income and 80 per cent of its outgo is regulated by some commission or other. As a consequence, the free play of economic conditions has been so throttled that at the beginning of war days, when prices were mounting on all sides, the railroad rates could not mount with them and the roads were almost bankrupt. At the end of the war prices started going down, and again the railroad rates could not keep pace downward with them and regulation.

We created this whole bewildering labyrinth of governmental control of railways primarily to protect the public against rebating, discrimination and excessive rates. We could have dealt adequately with the first two by comparatively simple penal laws, and competition was much more effective in meeting the problem of unreasonable rates in 1900 than government agencies are today.

I say: Sweep the whole awkward mechanism of restriction out of existence.

Of course, I know the answer to this—that the railroads of the country cannot live unless these commissions, federal and state, stand there today like stilts to hold their rates up. I concede that some of them, the badly financed and poorly operated ones, probably would undergo reorganization; but if we want the railroads to be revived and desire to put the able railroad men of the country back on their feet where they belong, we have got to turn them free and let them drift for themselves like other self-reliant Americans.

What I have said about the Interstate Commerce Commission and its relationship to the railroads goes also for the Federal Trade Commission and its effect on business generally. It likewise applies with equal effect to the United States Shipping Board and the restrictive shipping legislation Congress has enacted.

Well, what is to be done about it? The inquiry is a natural one. If we abolish all these commissions and bureaus will we not find our railroads giving rebates, our packers selling bad meat, our movies producing vile films? Aren't these commissions all necessary? The answer, I think, depends upon one's conception of freedom under government. I personally believe that we would do much better to punish the evil doer than to hobble all men so as to prevent their doing evil.

We must begin not only to take stock of the cost of our vast encroachments upon the freedom of the individual but also to look into the future and try to picture the logical outcome of these efforts to reverse economic law by legislative nostrums. We must go to one extreme or the other. Either all our commercial life must be regulated by governmental commissions, or all commerce must be liberated so that natural laws of trade are allowed to have full play. Government meddling which results in protecting one group of industries while leaving others without protec-

tion will not be tolerated in this nation. I believe that free competition in every branch of business is the only policy our people will approve in the future.

I strongly endorse the slogan of the party now in power: "More business in government and less government in business."

I realize that mine may be a voice crying in the wilderness. I hardly expect the majority to agree with me today. At some time in the future I am confident they will. All the legislative inventions, however alluring to the credulous, cannot make the streams of economic law run uphill.

After proposed legislation has run the gamut of conflicting economic interests represented in legislative bodies, and been placed on the statute books, those opposing it frequently have the possibility of carrying the contest to the courts on the ground that the legislation violates some provision of a written constitution. Threat of such a procedure plays a prominent part in the legislative debate over proposed laws. If the constitutionality of legislation is challenged in the courts—a procedure outlined in Chapter VII—a clash of opinion over the proper scope of government, more dignified but not essentially different from that characterizing legislative bodies, is likely to be found among members of the judiciary. The reason for this was partially outlined by the preceding articles. If a man sharing the views of the late Senator LaFollette on the proper relation of government to the economic life of the nation were elected President, he would in all probability appoint as members of the United States Supreme Court men sympathetic with his views. Senator Reed, given the power to appoint members of that court, could be counted upon to name men with sharply differing views.

When the problem before a court is that of deciding whether a given piece of legislation violates what are necessarily the measurably vague provisions of a written constitution, the views of the Justices on the proper scope of government in dealing with economic problems frequently become the deciding factor. The numerous cases in which members of the Supreme Court of the United States have been almost evenly divided on the question of whether certain Acts of Congress violate the federal Constitution are evidence of the fact that men do not completely abandon, when they become members of the judiciary, their previous opinions about what the government should do in dealing with economic problems.

In addition to the question of the extent to which the government should regulate economic activity, there is the question concerning the degree to which the government should participate in economic enter-

prise. In all government activity, of course, there is a species of economic enterprise. Government officials are hired by the public to produce various types of service for which the public pays in the form of taxes. To that extent the government is a great economic enterprise.

Government enterprise differs essentially, however, from private enterprise in that its principal objective is presumed to be the public welfare, as opposed to individual gain. There are some who contend that the pursuit of individual gain results inevitably in promotion of the public welfare, on the theory that in a competitive society people prosper in proportion to the public service they render. The motto of the Rotary Club, "He profits most who serves best," reflects this point of view. This may be true in some cases. Doubt about its validity in certain instances, however, has led the government to engage in a wide range of activities to regulate and hold individual enterprise in check. This has taken two closely related forms, that of simply setting up a supervising agency, and that of competing directly with private enterprise. It is the latter form of government activity which is commonly associated with the idea of government participation in economic enterprise, and which gives rise to the widespread controversy in the United States over questions relating to government ownership and operation of certain types of enterprises.

Many forms of government competition in producing goods and services are not the subject of strenuous controversy. Although it may be a matter of grave irritation to private detectives and watchmen, there is no widespread complaint against government operation of a police system. Although probably at one time mercenary soldiers protested that government operation of armies and navies interfered with their business, agreement is general now that such activities should be undertaken by the government. Likewise, there is no general outcry against government ownership and operation of schools, libraries, parks, and playgrounds.

When, however, the government ventures into those fields of activity where it is possible to make substantial profits by private enterprise, those in the field or hoping to be there can be counted upon to make a vigorous protest and to formulate arguments to prove that it is very unwise for the government to engage in such activity. On the other hand, if a particular enterprise proves unprofitable there may be strenuous endeavors to induce the government to take it over. This was the case with the Alaska Railroad, now government-owned and operated, which was urged as an admirable government enterprise by those who hoped to recover something from an unprofitable railroad building venture. The same was also true of the Cape Cod Canal,

sold to the federal government after it had proven conclusively that it was a losing proposition.

If government ownership and operation is proposed for enterprises profitable as private undertakings, the success of the proposal depends first upon the ability of its promoters to convince a majority of the voters, or those representing the voters, that they would gain from such an arrangement, and second, upon agreement by a majority of the Justices of the United States Supreme Court that such an arrangement is not forbidden by the terms of the federal Constitution. In endeavors to secure popular support for government ownership and operation, the argument most frequently advanced is that it results in lower prices for consumers. The argument most often used by opponents of such a plan of industrial ownership and management is that the government, having no occasion to make profits, is inefficient and shiftless as a manager of economic enterprises. In such arguments, it should be noted, the issue is not definitely joined. One of them is directed to prices, the other to industrial efficiency. Between the two there is no certain relationship, as has been indicated in previous chapters. Under some circumstances, for example, costs may be low and prices high.

Except for the arguments presented by thoroughgoing socialists, agitation in favor of public ownership and operation is limited to relatively few lines of enterprise—those of the general type discussed in the chapter on public utilities. In the following articles arguments for and against public ownership and operation of public utilities are arrayed against one another.¹¹

THE ADVANTAGES OF PUBLIC OWNERSHIP AND OPERATION OF "PUBLIC UTILITIES" ¹²

by Joseph B. Eastman

THE question of public ownership and operation is peculiarly one in which prejudice is likely to play a part, prejudice which may be and usually is quite unconscious. Aside from religion, there is perhaps nothing that so excites prejudice as the fear of being separated from the opportunity for profit. Under public ownership and operation of public utilities, the field for profit on the part of bankers would unquestionably

¹¹ Although Mr. Hadley is arguing principally against public ownership and operation in the electric power industry, and Mr. Eastman, an Interstate Commerce Commissioner, is principally concerned with railroads, the arguments advanced are generally broad enough in scope to be applicable to the public utility field generally.

¹² Adapted from *A Minority Report from the Committee on Public Ownership and Operation*, National Association of Railroad and Utilities Commissioners, rendered at the 39th Annual Convention, Dallas, Texas, Oct. 18-21, 1927.

be curtailed very materially. The officers of the private companies fear that they would be displaced or their salaries reduced. Certain of the directors may fear the loss of the lucrative opportunities which grow out of advance knowledge of coming corporate events. Those who furnish the private companies with supplies or services, often under the generous guardianship of holding companies, fear interference with existing profitable relationships. Those who perform functions which are not strictly public but may be affected with a public interest, such as insurance, fear that more direct public interference with their affairs may be encouraged. All these, and many others which might be mentioned, are sources of prejudice, conscious or unconscious, against which those who wish to think soundly must be on their guard. So strong is this underlying prejudice that the question is seldom discussed without some degree of feeling. A belief or disbelief in public ownership and operation has, in fact, become a shibboleth by which the conservative test political and economic sanity.

Returning to the practical question of public ownership and operation, it seems to me that it should be divided before it is answered. Public ownership is not the same thing as public operation, and each can exist apart from the other. The Boston subways are a good illustration of the advantages of public ownership. They were built by a public commission without a suggestion of scandal. The funds were procured at low rates of interest by issues of city or state bonds. They are leased to the operating company at an annual rental of 4.5 per cent, a rental sufficient to pay the interest on the bonds with something left over for a sinking fund which is already of substantial size. The time will come in the not too distant future when they will be owned free from all debt. In the meantime, there is no valuation problem and no claim that the subways must earn anything more than 4.5 per cent on original cost, although they could not be built today for anything like that cost.

The substantial advantages of public ownership, as I see them, are low cost of capital; opportunity gradually to reduce or eliminate the capital charge without hardship upon the public in the process; and above everything else, I am inclined to think, freedom from the valuation nightmare. Under the valuation doctrine the capital charge in the case of privately-owned utilities can apparently never be reduced or eliminated by any sinking fund or other similar provision; it is a perpetual millstone around the public neck; and it may double in weight without any change in the underlying property if the reproduction cost theory is finally sustained. In addition, the country must support a small army of valuation experts.

It may be argued that under public ownership the government will in some instances be too timid about investing in new enterprises and in other instances too venturesome. The answer is that experience has shown that private capital is subject to the same criticism. We have been forced to rely upon public regulation to protect ourselves against these very dangers. I refer to the powers so frequently vested in public commissions to grant or withhold certificates of exigency and to require

new construction. If government can be trusted to police private capital in this respect, cannot it be trusted to police itself?

As a policy for future application to new enterprises, the arguments in favor of public ownership seem to me not only persuasive but convincing. Whether it is wise to apply this policy to enterprises already existing is another matter, and I shall defer the discussion of that question to the final paragraphs of this article.

Public operation of public utilities is a much more debatable question than public ownership. The usual method of approach in studying the question, however, seems to me quite inadequate and unsound. I refer to comparisons of the operations of publicly-managed and privately-managed properties. The conditions under which properties are operated vary so widely that it is practically impossible to make a scientific comparison of like with like. Laboratory experiments under which conditions can be rigidly controlled are, of course, wholly impracticable. If you have doubt as to the difficulty of comparisons, try making a statistical analysis of the relative efficiency of operation of two privately-managed utilities of the same kind, and see whether you can arrive at a result which will not be instantly and forcefully challenged on the ground of differing conditions. The field of selection in the case of publicly-operated utilities is very narrow, whereas in the case of privately-operated utilities it is very wide. Much depends, when such comparisons are undertaken, as with comparisons of railroad rates, upon the preconceived notions of the investigator. Marked success will, in general, be exhibited in proving what it is set out to prove.

It is quite certain that whether public utilities are privately or publicly operated, some will be better managed than others and some, indeed, will be very poorly managed. Read, for example, the report of the Interstate Commerce Commission upon its investigation of the history of the Denver and Rio Grande and ask yourselves whether public management could have done worse. I mention that report merely because it is recent. Many others might be cited. Even in the field of dishonesty and corruption it is easy to mention privately-operated railroads and utilities which have held unenviably high rank.

The best method of approach to the question, it seems to me, is to consider what advantages and dangers the two forms of operation respectively present, and the extent to which the advantages can be cultivated and the dangers be avoided. Which form of operation, in short, offers the greater opportunity for good results, all things considered?

The advantage which is chiefly urged as a reason for private operation is well expressed by the following sentence:

"Throughout the business world the best service is rendered when there is hope of reward, and the best commodity is produced when there is hope of profit."

Obviously, money is the reward in mind. Now I do not agree that money is the only or even the best incentive to good work. There is plenty of evidence to the contrary. But I shall try to meet the argument on its

own ground. The owners—and by that I mean the stockholders—of a large private corporation are becoming, as the shares are more widely distributed, less and less of an influence in the management. The small stockholder cannot inform himself adequately as to the affairs of his corporation, or attempt real control of its management. The present movement toward consumer and employee ownership of public utility shares may lessen the rigors of public regulation, but its tendency is clearly to make the board of directors a self-perpetuating body. It seems to me that the influence of the stockholders may largely be eliminated from consideration.

It must further be remembered that while money may be a reward of honest effort, it has long been known as the "root of all evil." There are illegitimate as well as legitimate means of making money, and the illegitimate often promise a quicker and greater reward. In private business we depend upon competition to curb such tendencies; but in the public utility field the influence of competition is so limited and uneven that it cannot be depended upon as a regulatory force and it tends, indeed, to become a prolific source of discrimination and abuse. The railroad evils which the Interstate Commerce Commission was at the beginning created to correct were almost wholly the results of competition. The history of privately-operated railroads and public utilities makes it clear beyond question that the greed for gain, if permitted full sway in these monopolistic enterprises, will yield much evil as well as good. Their record in the past is littered with wreckage from financial fraud and both business and political corruption. The country found it necessary to devise some means of protection, other than competition, and where did it turn for such protection? That, it seems to me, is an extremely significant question.

In its need it turned from private enterprise to our federal, state, and city governments. In other words, it sought protection from men in public life. That the move was a wise one is generally conceded. No one advocates private operation without an accompanying public regulation. But are there no disadvantages in such regulation?

I have been a part of public regulation for a long time, and I am confident in the belief that it is an effective instrument for good. Nevertheless, it is a somewhat cumbersome and anamalous device. Regulation is partial management. It is quite idle to attempt to disguise that fact by fine-spun distinctions. Also, regulation must operate in large part through the slow processes of judicial procedures. An enormous amount of time and effort is consumed in the litigation incident to public regulation. The direct governmental expense is infinitesimal in comparison with the magnitude of the operations which are regulated; but when to that is added the expense incurred by the public in protecting its rights before the commissions and the similar expense incurred by the utilities, the item of cost becomes substantial. In addition to the money cost is the wear and tear upon executives whose energies are often diverted from more constructive channels.

Moreover, reliance in the last analysis is upon men without prospect of large money rewards, who are picked up by the same purely political processes that are so horrendous when public operation is suggested. It seems to me that the significance of this fact, combined with the fact that public regulation has achieved a very fair measure of success in lessening the evils which it was designed to correct, has escaped proper attention.

This brings me to the matter of political corruption and its relation to public operation. Certainly such corruption exists in this country, and to a distressing extent. The most alarming thing about it, I am inclined to believe, is the indifference and complacency with which it seems often to be viewed by many business men, even when it shows its slimy head in the highest places. But that is, perhaps, merely a reflection of the fact that a democracy gets about the kind of government that it deserves, and of the further fact that business and political morality tend to rise or sink to a common level. For every public bribe-taker there is a private bribe-taker, and usually more than one. My own experience in the public service, however, has not made me pessimistic as to its possibilities. I have been impressed by the devotion, industry, and high integrity of public servants far more often than by evidence of their wickedness. But I shall not undertake to defend public operation on the ground that it is free from temptation or the possibility of abuse, or that the public service is within striking distance of perfection.

When evils in private operation have been disclosed by experience, the country has tried to find a cure for those evils, and with a fair degree of success. But when possible evils in public operation are suggested, they seem to be welcomed as friendly allies and pressed into service as reasons why such operations should on no account be attempted. If there are antidotes to the evils, few seek to discover them. The problem is one to which I have given some thought and I have certain suggestions to offer which I believe are worthy of some measure of consideration.

In the first place, it seems clear to me that public operation of an industry or business ought not to be handled in ordinary routine by a government bureau or department. On the contrary, it should be kept separate and handled on a strict self-supporting basis by a business corporation organized in the usual way but controlled through stock ownership by the government. Its affairs should be directed, like those of any other business corporation, by a board of directors chosen by the government as the controlling stockholder. A majority of the directors should be both appointed and selected by the President or the governor or the mayor, as the case may be, or perhaps by an unpaid commission constituted for the purpose; but provision should be made for minority directors selected by non-political groups having a direct personal interest in honest and efficient management. I think that the employees should be represented in this way by one or more directors, and also the business interests of the community. How these latter representatives should be selected it is unnecessary for present purposes to determine, but the prev-

alence of chambers of commerce, national, state and city, suggests at least one way.

Such a plan, of course, is capable of much variation and could be improved and perfected by the thought of many minds, and by experience if it were carried into practice. As a matter of fact, it is quite similar to the plans under which the Canadian National Railway and the Boston Elevated Railroad are now publicly operated, except that in neither of those cases, I believe, is provision made for the appointment of minority directors or trustees independent of those selected by the government. Such a plan makes it possible to carry on the business in much the same manner as it would be carried on by a private business corporation, and with much the same degree of flexibility in the fixing of wages and salaries. No difficulty would, I am confident, be experienced in paying adequate salaries, although they would not reach the extreme and unnecessary heights sometimes attained in the case of private corporations. Any tendencies toward corruption or other manner of exploitation would be curbed, if not by the character of the publicly-selected directors, as I believe would in general be the case, then by the presence on the board of independent directors representing the non-political groups.

I have, of course, attempted in this very brief report only to give the barest skeleton of this plan of public ownership and operation. As I have suggested, elaborations and improvements and further safeguards are altogether feasible. The plan would, as I see it, among other things:

(1) Render unnecessary much of the present system of duplicated management operating through the cumbersome processes of judicial procedure—which is what public regulation really is.

(2) Free the public from the vexation and expense, and also the very serious dangers, of the valuation doctrine.

(3) Reduce the cost of procuring capital and render unnecessary any profit over such cost, but at the same time make it feasible, if desired, to retire debt and the annual burden associated with such debt by sinking-fund or similar provisions.

(4) Substitute for private managements, which more and more are becoming self-perpetuating institutions, managements directly responsible to a government representing all the people, and in part to non-political groups directly benefited by good management and injured by bad.

(5) Lessen the present danger that managements will be directly or indirectly dominated by banking or other interests which have business dealings with the utilities.

(6) Improve the relations between the utilities and their employees, and also the public which they serve, by changing the key note of the management from private profit to public good.

But there is something, in my opinion, which is even more important, although less tangible, than any of these matters which I have mentioned. I cannot avoid a fear that we are in danger in this country of being mired in a morass of gross materialism, in other words, of becoming a

nation devoted to the worship of money. For my own part, I do not believe that the pursuit of profit is the chief end of man, that government is a necessary evil to be kept religiously out of all fields which may offer opportunities for private profit, or that the public service must inevitably be the domain of a certain low order of beings commonly styled politicians. On the contrary, I believe that there is no more important field of activity than the public service, that it offers opportunities for genuinely constructive work of consuming interest, and that it ought to be able to attract as good brains as the country can provide.

There are certain functions which clearly belong to the state, and these it ought in self-respect to perform itself. They ought not, in my opinion, to be degraded by conversion to the ends of private profit. We depreciate ourselves and our public service by so doing, confess our incapacity for efficient government, and surrender high ideals for low. If we should adopt the principle that every government function shall be performed directly by the state and shall not be farmed out to private enterprise, it is my very sincere belief that the ultimate result would be to increase respect for the government and improve the character of our public service. I know of no better way of making government efficient than by making it vital to the country, including its business men, that it should be efficient. But even if the effort were attended by many failures and shortcomings, I believe it to be a far healthier situation that this country should struggle toward an ideal than that it should surrender to the baser principle that the public good can only be attained to the extent that it happens to coincide with the ends of private profit.

As a policy for new enterprises of the future, then, I am wholly convinced that public ownership and operation along the lines which I have indicated is sound public policy. There remains the question, however, whether an attempt should be made to establish such a policy in the case of those railroads and public utilities which now exist and are privately operated under public regulation. It seems to me that there are many practical aspects to this question which merit consideration.

In the first place, any radical, extensive, and sudden change in present conditions is dangerous unless proper preparations have been made for such a change and it is supported by public opinion. I question whether public opinion is now prepared to support a wholesale conversion of our railroads and utilities to public ownership and operation, and I am quite certain that adequate preparations for such a step have not been made and probably could not be made under present conditions.

In the second place, until the courts have more definitely indicated their views upon the valuation question, such a step would be attended by the danger that it would involve the payment of a price, either for the physical properties or for the stocks of the private corporations, so out of reason that it would condemn the new policy to comparative failure for some years to come.

Without further elaborating such considerations, I am persuaded that the policy of public ownership and operation must await gradual devel-

opment under the slow processes of evolution. It can and should be adopted for the future, and from time to time circumstances will arise in the case of particular existing properties which will make possible the adoption of the new policy under comparatively favorable conditions.

THE WEAKNESSES OF PUBLIC OWNERSHIP AND OPERATION OF PUBLIC UTILITIES¹³

by Arthur Twining Hadley

INDUSTRIES are of two kinds: the standardized and the progressive. In the standardized type, of which the post office, the telegraph, and the municipal water supply are examples, a large part of the work is a matter of routine. Honest administration and faithful performance of service are the all-important conditions. The capital invested is either small in proportion to the year's business, as in the post office, or subject to easily calculated depreciation charges, as in the water supply. The necessity rarely arises for making radical changes of method to keep abreast of the times, or scrapping a plant before it is worn out because new inventions have rendered it obsolete. The year's budget can, therefore, reflect the year's operations pretty accurately, and show whether there is a real profit or a loss concealed under the appearance of a profit.

In the progressive industries all these conditions are reversed. The success of the work depends upon something more than the performance of routine duties. The amount of capital involved is large. Depreciation cannot be accurately calculated. New inventions and new methods often render a plant obsolete before it is worn out. The year's budget does not and cannot accurately reflect the year's conditions. A delay in scrapping a group of machines which modern improvements have put out of date may convert a real loss into an apparent profit. A successful experiment which is going to be highly profitable in the long run may create a present loss which will only be repaid by profits in the budgets of future years.

The history of state-owned industries in the nineteenth century shows that government does relatively well with standardized industries like the post office, and relatively ill with progressive ones, such as the railroad. The difference is particularly marked where the administration is under the control of a legislative assembly.

The primary object of a legislative assembly is to promote certain policies which its members and the people who have elected them regard as important. To do this they must keep their own party in power. They look with disfavor on experiments which, if unsuccessful, will be made a campaign issue against them, and if successful may simply rebound to the credit of the other party after it has got into power. They are reluctant to substitute new methods for old ones when the success of the new method involves writing off from the capital account an asset which

¹³ Adapted from an article in *The Nation's Business*, January, 1925.

was handed down to them by their predecessors, and spending current funds on something from which their successors will reap the advantage.

Among the large industries of the present day, the one which is least standardized and most progressive in its character is the electric power industry. Among those of the nineteenth century the one which was least standardized and most progressive was the railroad industry.

Amid all their external differences, the things which affect the relations of these two industries to the government are singularly alike. The history of state railroad management in the last century should, therefore, indicate with a good deal of accuracy what results we may expect to reach and what dangers we have to fear if electric power development should be placed in government hands.

In the first place, state railroads have habitually proved unprofitable. Though every great country with the exception of Great Britain has made experiments in state railroad operation, only two—Prussia and the South African Dominion—have succeeded in earning the full amount of interest on the capital invested. Some others, like Sweden or New South Wales, have pretty nearly succeeded in doing it; but, in general, state railroads have constituted a large and increasing burden on the taxpayers. The hopes of lightening the burden for future generations by sinking funds, which were frequently cherished at the outset, have not been realized.

In the second place, no operating improvement of importance has ever had its origin on a government railroad system. Telegraphic train orders, interlocking switches and signals, air brakes, automatic couplers, all had their origin on the private railroads of England or America. Government railroads gradually introduced them after they had been tried out on private lines, but they did not originate them. Improvements in equipment and traction by which traffic could be carried at low unit cost have almost always been due to private initiative.

In the third place, the state roads were equally backward in commercial improvement. The thing that made it practicable to reduce railroad rates so rapidly during the latter half of the nineteenth century was the development of a system of tariffs which made a large traffic in cheap goods possible, which encouraged long-distance shipments and which utilized the invested capital to the fullest extent. The advantages of this system for the public as well as the railroads were fully recognized by German political economists; but the Prussian government and other governments were slow in accepting it, preferring to adhere to the equal-mileage principle at the sacrifice of traffic and traffic economy.

Such have been the results of ninety years of state management in the industry which, in its progressive character and its problems of making rates to develop the kind of traffic which will utilize the plant economically, most nearly resembles the electric power industry of today. How do the advocates of state ownership of power plants try to rebut the presumption created by these facts?

In the first place, they admit the bad effects of national politics upon

business management wherever it is allowed to enter, but they think that they can keep it out of the electric industry to a greater degree than has been possible in railroad industry. They propose to make the work of selling electricity to the public in various parts of the country a matter of municipal administration, and to treat the system of power plants as a coöperative undertaking for the municipalities under a permanent chief, independent of political control by the legislative body.

All these points are good as far as they go. Municipalities are likely to manage industry better than the national government for two reasons: the municipality is organized to do business as its primary object, not to legislate; and it can be more closely watched by the people with whom and for whom it does business. But the one question, and to those of us who have come in contact with legislative assemblies in recent years it is a serious question, is this: How many men are strong enough to assert their independence when there is a fundamental difference of opinion between them and the legislative assembly as to what ought to be done?

I am content to leave this as a query and pass on to a more important part of our subject. Assuming the administration to be thus organized and the chief to have this power and this permanence, what policy do they propose to pursue? What advantage will their system offer the community if successful?

The answer generally is that they propose to give lower rates to the consumer either now or in the future than private companies can afford to give. They contend that they are able to do this by their exemption from taxation and by the fact that they are not trying to make a profit as private companies do, but are content to pay interest and perhaps contribute to a sinking fund. Now I shall try to show that, looking at the question as a matter of economic theory, both these methods of lowering costs are wrong in principle—harmful rather than helpful to the community and particularly harmful under conditions as they exist at present.

The proposal to exempt a large group of industrial investments from taxation is always open to grave criticism. The cost of electric light or electric power is not done away with by such exemptions. It is merely shifted to shoulders other than those of the producer of electricity.

This kind of exemption also has a bad effect on the morale and efficiency of a government industry. If the manager of a private company has to pay interest and taxes in order to show a balance on the right side, and the managers of a government property can do so by paying interest alone, the latter tends to overestimate the excellence of the work he is doing and content himself with a lower standard of efficiency and economy.

It is sometimes said that the exemption of a public enterprise from taxation is offset by the requirements of contributions to a sinking fund to which it is subjected. I doubt whether this is generally a sufficient offset to post-war taxes.

But even if it were sufficient in amount, there are good reasons from the accounting standpoint against treating a sinking fund contribution as an offset to a tax exemption. A tax is a current expense; it represents a contribution made by the electric industry in common with other industries to the general expenses of the government for the year. A sinking fund is not, except constructively, a current expense. It is an investment of capital which you guess will prove a good one fifteen or twenty years hence. And my objection to treating it as an offset to taxation is that the government nearly always guesses wrong. In the long history of government railroad operation there is scarcely an instance where a sinking fund really produced the effects intended, where the public really got a valuable property free or substantially free from debt.

The second method by which it is proposed to reduce costs of government enterprise is by foregoing profits.

In the light of the history of railroads in the previous century, it would perhaps be sufficient to say that this offers no prospects at all. If government enterprises have been barely able to pay current expenses, how can they make rates lower by renouncing a profit which they never had?

But the objections to this idea can be put on broader grounds. Let us assume that twentieth-century governments know more about managing industry than nineteenth-century governments, that they could make a profit if they tried, but that they deliberately decide to operate at cost. I hold that in the case of a progressive industry as distinct from a standardized one, this attempt is unsound in principle and will hurt the public instead of helping it.

In an industry where rates are kept at a reasonable figure, either by competition or by the action of public service commissions, profits are made in two ways—by developing new business which allows the plant to be better utilized, or by introducing new machines or methods which cheapen the direct cost per unit of traffic. In neither case is there any loss to the public. In the first there is an immediate public gain in the form of larger service; in the second there is a possibility of public gain which becomes an actuality as soon as the use of the new method becomes general; for the experience of every industry with large fixed capital shows that a reduction of unit costs makes a reduction of rates not only possible but profitable. This is the way progress is made. This is the way in which new ideas are introduced and developed which mean big gains for the public. If we can get a real improvement of machinery or of method, the price paid in the form of profit is always small in comparison with the general gain to the community.

If the producing plants are owned by private capital, individuals or groups of individuals have the chance to try experiments at their own risk.

The profit on the invention that succeeds or on the method that proves useful seldom equals the aggregate loss on the inventions or methods which look good in theory but prove bad in practice; but the companies gain,

and the communities gain largely in the long run from utilizing successful inventions.

It is very difficult, if not actually impossible, for a state-managed industry to be free to try this sort of experiment. It is not because the chief insists on pecuniary rewards for himself. But he cannot try all the experiments at once on the public account; and in the light of the way governments have treated inventors, he finds it very hard to get other people to try the experiments at their own risk. He has to confine himself to a very few experiments under the advice of an expert; and in railroad history, at least, it has not generally been the scientific experts, either in physics or political economy, who have first shown the way to the big results. Private ownership encourages experiment; state ownership encourages stabilization.

Such are the economic reasons which underlie and explain the fact that government management has been fairly successful in standardized industries and habitually unsuccessful in progressive ones.

QUESTIONS

1. Examine the apportionment of taxes received by the federal government, and suggest what must be done if federal taxes are to be decreased in any major degree.
2. Outline what you would regard as a series of adequate tests to determine whether the people of the country are getting "their money's worth" from the various governments. Do you think your series of tests would be equally acceptable to all economic groups? Why?
3. Can you suggest any general answer to the question of whether a community should finance such public improvements as highways from bond issues or current taxes? How should wars be financed, in your opinion?
4. What, if anything, is proved by the fact that the per capita expenditure for "movies" in the United States is higher than it is for state universities? What added information, if any, do you think is necessary to appraise the significance of such expenditures?
5. In view of the fact that only a relatively limited number of young people are financially able to attend state universities, do you see any justification for taxing all of the people of the state to maintain them?
6. Why is it necessary to be familiar with the decisions of the United States Supreme Court in order to make an intelligent judgment concerning the significance of the "states' rights" issue in controversies over federal regulation of economic activity?
7. How do you reconcile the fact that many lobbyists are paid salaries greater than the President of the United States with the theory

that the government gives equal protection to all individuals and economic groups?

8. Do you think it is strange that Senators LaFollette and Reed (of Pennsylvania) should be members of the same political party? Explain.
9. It is frequently argued that much of the apathy of people qualified to vote in the United States is due to the fact that the major political parties dodge all of the important issues. Do you agree? Do you think the situation calls for a "remedy"? If so, what one do you suggest? Is it practical?
10. Look up the votes of Senator David Reed on the tariff. Do you find that they fit consistently into his theory that the government should keep "hands off" of industry?
11. Senator LaFollette was characterized by a great many people as a very radical legislator. Does the statement of his views on the relation of government to industry offer any explanation of this?
12. Do you think college football teams would play harder and more efficiently if the members of the teams were paid salaries based on the number of yards gained and the touchdowns scored? What light, if any, does your answer throw on your attitude toward government ownership and operation of public utilities?
13. Is the argument that men need the incentive of profit to exert their best efforts an indictment of our present system of government regulation of public utilities? Explain.
14. Can as good an argument be made for public ownership and operation of department stores as for water systems and railroads? For railroads as for telegraph systems? For telegraph systems as for sewer systems? If so, why? If not, why not?

LIMITING THE POPULATION

THIS chapter is the first of a group of three which will consider some possible means of easing the conflict over income. It will deal with plans to limit the population or the number of income seekers within a country—specifically, programs of birth control and immigration restriction. In that connection there will be discussions of:

- (1) The pressure of population.
- (2) Birth control and eugenics; arguments pro and con.
- (3) The flow of immigration and attempts to control it.
- (4) Attitudes of organized labor and business leaders toward immigration restriction.
- (5) "Americanism" as an issue in programs of immigration restriction.

THAT there is not enough income to satisfy everyone is a fact which has been noted in previous chapters. Whether there ever will be enough is a question open to endless debate, for no one knows what the future will bring forth. In the meantime, the struggle for more income between individuals, groups, communities and nations continues.

We have considered something of the group conflict for larger shares of the available income and some of the activities designed to reshape the lines along which income is divided. Thus far the discussion has tended to run in terms of the problem of dividing a fixed income among a fixed number of persons. At the same time, efforts are being made to ease the income struggle by (1) reducing the number of people to share in the present income; (2) increasing the total income to be divided; and (3) wholesale revision of our economic system, involving various alternative plans of economic organization, such as socialism, communism, syndicalism and other "isms."

Broad programs of this type generally spring from particular individual or group interests. Usually, indeed, they are most carefully formulated by those who have the most to gain from them. To that extent they are simply other phases of the struggle of different groups for larger shares of income, which we have been discussing. But because such programs are comprehensive in scope and have a major bearing on the fortunes of all groups, they are treated separately and will be the subject matter of the remaining chapters of this book.

We will find that each of these plans to ease the conflict over income has its hearty protagonists and usually its equally staunch opponents. Our problem will be that of seeing where, if anywhere, there seem to be elements of truth in the conflicting arguments. In considering the question of limiting the number of people seeking shares in the national income, we will find that two plans of procedure are involved. One is the control of births. The other is the control of immigration to our country by people from foreign lands.

In the discussion of birth control and immigration restriction as devices to ease the struggle for income, this question should be kept in mind: Does the limitation of the number of income seekers actually mean a greater share of income for the favored few who remain, or does it mean that the net result will be the same after all, since fewer people may create a smaller total income to be divided? The idea has been expressed in this form: "Each new mouth that comes into the world brings a pair of hands with it." Each new human addition to the world may also bring personal traits which are a source of pleasure and, hence, a form of income to friends and relatives.

This question cannot be settled without particular reference to time and place. If, for example, in a given situation machinery and electric power are of more importance to the success of the productive process than the mere number of workers, the fact that new people have mouths to feed may overshadow the fact that they have hands and arms with which to work.

In this chapter the first subject to be considered is control of births. It is introduced by a part of Malthus' famous discussion of the relation between population growth and the means of subsistence, written about one hundred and twenty-five years ago. The insistence of the author on the scarcity of the means of subsistence is undoubtedly connected with the fact that there was a relative food shortage in England at the time he wrote. Malthus' theory serves, however, as the basis of many modern proposals in regard to birth control and eugenics.

THE PRESSURE OF POPULATION¹

by Thomas Robert Malthus

IN AN inquiry concerning the improvement of society, the mode of conducting the subject which naturally presents itself is (1) to investigate the causes which have hitherto impeded the progress of mankind towards happiness; and (2) to examine the probability of the total or partial removal of these causes in the future. The principal object

¹Adapted from *An Essay on the Principle of Population, or a View of the Past and Present Effects on Human Happiness*, sixth ed., 1826.

of this essay is to examine the effects of one great cause intimately united with the very nature of man. This is the constant tendency of all animated life to increase beyond the nourishment provided for it.

Through the animal and vegetable kingdoms Nature has scattered the seeds of life abroad with the most profuse and liberal hand. If the germs of existence contained in the earth could freely develop themselves, they would fill millions of worlds in the course of a few thousand years. Necessity, that imperious, all-pervading law of nature, restrains them and man alike within prescribed bounds.

The effects of nature's check on man are complicated. Impelled to the increase of his species by an equally powerful instinct, reason interrupts his career, and asks him whether he may not bring beings into the world, for whom he cannot provide the means of support. If he hear not this suggestion, the human race will be constantly endeavoring to increase beyond the means of subsistence. But as, by that law of our nature which makes food necessary to life of man, population can never actually increase beyond the lowest nourishment capable of supporting it, a strong check on population, namely, the difficulty of acquiring food, must be constantly in operation. This difficulty must fall somewhere, and must necessarily be severely felt in some or other of the various forms of misery by a large portion of mankind. This conclusion will sufficiently appear from a review of the different states of society in which man has existed. But the subject will be seen in a clearer light, if we endeavor to ascertain what would be the natural increase in population, if left to exert itself with perfect freedom.

Many extravagant statements have been made of the length of the period within which the population of a country can double. To be perfectly sure we are far within the truth, we will take a slow rate, and say that population, when unchecked, goes on doubling itself every twenty-five years, or increases in a geometrical ratio. The rate according to which the production of the earth may be supposed to increase, it will not be so easy to determine. However, we may be perfectly certain that the ratio of increase in a limited territory must be of a totally different nature from the ratio of the increase in population. A thousand millions are just as easily doubled every twenty-five years by the power of population as a thousand. But the food will by no means be obtained with the same facility. Man is confined in room. When acre has been added to acre till all the fertile land is occupied, the yearly increase in food must depend upon the melioration of the land already in possession. This is a fund which, from the nature of all soils, instead of increasing must be gradually diminishing. But population, could it be supplied with food, would go on with unexhausted vigor; and the increase in one period would furnish a power of increase in the next, and this without any limit. If it be allowed that by the best possible policy the average produce could be doubled in the first twenty-five years, it will be allowing a greater increase than could with reason be expected. In the next twenty-five years

it is impossible to suppose that the produce could be quadrupled. It would be contrary to our knowledge of the properties of land.

Let us suppose that the yearly additions which might be made to the former average produce, instead of decreasing as they certainly would do, were to remain the same; and that the product of the land might be increased every twenty-five years, by a quantity equal to what it at present produces. The most enthusiastic speculator cannot suppose a greater increase than this. Even then the land could not be made to increase faster than in an arithmetical ratio. Taking the whole earth, the human species would increase as the numbers 1, 2, 4, 8, 16, 32, 64, 128, 256, and subsistence as 1, 2, 3, 4, 5, 6, 7, 8, 9. In two centuries the population would be to the means of subsistence as 256 to 9; in three centuries, as 4096 to 13; and in two thousand years the difference would be almost incalculable.

In this supposition no limits whatever are placed to the produce of the earth. It may increase forever and be greater than any assignable quantity; yet still, the power of population being in every period so much greater, the increase of the human species can only be kept down to the level of the means of subsistence by the constant operation of the strong law of necessity, acting as a check upon the greater power.

But this ultimate check to population, the want of food, is never the immediate check except in cases of famine. The latter consists in all those customs, and all those diseases, which seem to be generated by a scarcity of the means of subsistence, and all those causes which tend permanently to weaken the human frame. The checks may be classed under two general heads—the preventive and the positive.

The preventive check, peculiar to man, arises from his reasoning faculties, which enable him to calculate distant consequences. He sees the distress which frequently presses upon those who have large families; he cannot contemplate his present possessions or earnings, and calculate the amount of each share when they must be divided, perhaps, among seven or eight, without feeling a doubt whether he may be able to support the offspring which probably will be brought into the world. Other considerations occur. Will he lower his rank in life, and be obliged to give up in great measure his former habits? Does any mode of employment present itself by which he may reasonably hope to maintain a family? Will he not subject himself to greater difficulties and more severe labor than in his present state? Will he be able to give his children adequate educational advantages? Can he face the possibility of exposing his children to poverty or charity by his inability to provide for them? These considerations prevent a large number of people from pursuing the dictates of nature.

The positive checks to population are extremely various, and include every cause, whether arising from vice or misery, which in any degree contributes to shorten the natural duration of human life. Under this head may be enumerated all unwholesome occupations, severe labor, exposure to the seasons, extreme poverty, bad nursing of children, great

towns, excesses of all kinds, the whole train of common diseases, wars, plagues, and famines.

The theory of population is resolvable into three propositions: (1) Population is necessarily limited by the means of subsistence. (2) Population invariably increases where the means of subsistence increase unless prevented by some very powerful and obvious checks. (3) These checks which keep population on a level with the means of subsistence are all resolvable into moral restraint, vice, and misery.

Programs of birth control usually do no more than urge the liberal broadcasting of knowledge of contraception. It is usually held that people who are in the best economic position to rear families practice birth control, while the poorer people have large families. Since the large families of the poor serve only to increase their own poverty and misery and at the same time constitute a social problem for the rest of the community, the argument is made that knowledge of contraception ought to be spread to the "lower classes," and the practice of birth control urged upon them.

Programs of eugenics carry the argument much further. They are directed to social control of both the quantity and the quality of population by means of selection from the "best stocks." The proponents of eugenics are confident that standards are available by which the "best stocks" can be determined. Many biologists, impressed by the complexity of the life process as it is revealed by scientific study, are much less certain. None the less, the eugenists feel sure that adoption of their program would go far toward a solution of human ills.

Although people who at present discuss eugenics freely are often classed as "ultramodern," there is nothing very novel about the subject. This is indicated by the following selection from Plato's *Republic*, written several centuries before Christ. It is followed by an outline of some of the aims of the small but persistent group which is at present carrying on the "crusade" for the adoption of a general program of birth control and eugenics.

HOW TO GET THE BEST POPULATION ²

by Plato

"THEN tell me, Glaucon, how is this result to be attained? For I know that you keep in your house both sporting dogs and a great number of game birds. I conjure you, therefore, to inform me whether you have paid any attention to the breeding of these animals."

"In what respect?"

²Adapted from *The Republic*, 385 B. C.

"In the first place, though all are well bred, are there not some which are, or grow to be, superior to the rest?"

"There are."

"Do you then breed from all alike, or are you anxious to breed as far as possible from the best?"

"From the best."

"And if you were to pursue a different course, do you think that your breed of birds and dogs would degenerate very much?"

"I do."

"Good heavens! my dear friend," I exclaimed, "what very first-rate men our rulers ought to be, if the analogy holds with respect to the human race."

"Well, it certainly does."

"The best of both sexes ought to be brought together as often as possible, and the worst as seldom as possible, and the issue of the former unions ought to be reared, and that of the latter abandoned, if the flock is to attain first-rate excellence."

"You are perfectly right."

"Then we shall have to ordain certain festivals at which we shall bring together the brides and bridegrooms, and we must have sacrifices performed, and hymns composed by our poets in strains appropriate to the occasion; but the number of marriages we shall place under the control of the magistrates, in order that they may, as far as they can, keep the population at the same point, taking into consideration the effects of war and disease, and all such agents, that our city may, to the best of our power, be prevented from becoming either too great or too small."

AIMS OF BIRTH CONTROL AND EUGENICS ³

by Charles V. Drysdale

THE organized Neo-Malthusian (or birth control) movement may be said to have started in 1876 and to have had four main objects:

(1) *Quantitative or Economic*.—To promote an understanding of the Malthusian doctrine, and to diminish the birth rate until it is in harmony with the increase of subsistence, and thus to eliminate misery or absolute poverty: *i.e.*, to insure that all shall secure adequate nourishment.

(2) *Qualitative or Eugenic*.—To improve the quality of the race by advocating abstention from parenthood on the part of the hereditarily diseased or defective, and limitation of births in each family to the number which can be satisfactorily reared without external assistance.

(3) *Physiological and Moral*.—To promote healthy understanding of sex functions, and the knowledge of contraceptive devices; and to promote sexual purity by advocating universal early marriage, which can only be achieved by removing the fear of the economic evils of large families.

³ Adapted from the presidential address to the Sixth International Neo-Malthusian and Birth Control Conference, 1925.

(4) *International*.—To remove the international rivalries caused by the pressure of overpopulation, and thus give opportunity for the establishment of international law leading to federation and permanent peace.

The inspiration for our crusade arises from the great doctrine of overpopulation first clearly enunciated by Malthus in 1798, and which in my opinion stands to social science in the same relation as Newton's law of gravitation does to physics and astronomy.

According to the Malthusian Law, the rate of increase of population, *i.e.*, the difference between birth and death rates, is determined by the rate of increase of subsistence. Let us suppose for simplicity that the rate of increase of the food supply of a country is one per cent or ten per thousand per annum. Then if the birth rate is fifty per thousand, as it has been in Russia and Egypt, and only ten per thousand can survive, the death rate must be forty per thousand. But if the birth rate falls to forty or thirty, the death rate can fall to thirty or twenty respectively, *i.e.*, every rise or fall in the birth rate will be followed by a corresponding rise or fall in the death rate, if the Malthusian doctrine is true and no sudden alteration of productive power has taken place.

The course of events has completely justified our anticipation on this point. Wherever the birth rate has fallen, there also has the death rate diminished, and usually by a closely corresponding amount, while where the birth rate has been stationary or rising, the death rate has either remained nearly stationary or has actually risen in spite of all advances in medicine and sanitation. We have, therefore, considerable justification for the assumption that in the great majority of countries there had been a pressure of population on subsistence, and that the great fall of the death rate which has been witnessed in most civilized countries is principally due to the fall in their birth rates, and would not have occurred if the old high birth rates had been maintained. In Great Britain alone we now have nearly half a million less deaths annually than would have taken place with the birth rate which existed before 1876, and the average length of life has been increased from about 35 to 57 years.

We can dispose definitely of the foolish cry of "Race Suicide." Reduction of the birth rate in an overpopulated country not only does not diminish the rate of increase of the population but may actually increase it, as those who come into the world to die in childhood not only contribute nothing to the increase of population but deprive the others of a certain amount of subsistence and reduce their strength and efficiency. Holland and Germany have both shown an acceleration of population increase with a rapidly falling birth rate. France, which is always spoken of as a "dying nation," has actually about the same rate of increase today, with a birth rate of about 19 per thousand, as it had before the Revolution, with a birth rate of 39.

Side by side with the quantitative question of population, and of equal or even greater importance in western nations at the present day, is the question of its quality. The importance of this question was realized from the very beginning of the movement, and articles soon appeared

laying down the principles which have since become known as negative eugenics, *i.e.*, that persons having hereditary disease or defect, though they might marry, should abstain from procreation, and that families should be restricted to that number for which parents could provide satisfactory nurture and education without external assistance. Although modern eugenics has added to our knowledge of what constitutes hereditary defectiveness, it has not in the least affected the above principle, and we are glad to see that eugenists are tending more and more to accept it.

On the intellectual side, we can rejoice that our eugenic ideal is steadily winning its way towards acceptance. But as regards practical results, this part of our aim has failed up to the present in every country except Holland. Immediately the Malthusian League was founded, a campaign was at once launched among the working classes, who received it with enthusiasm. But within a few months it was absolutely frustrated by the socialists, who claimed that it was a pretext for making the people content with their lot instead of agitating for their "rights," and that if the people would espouse socialism and work for the revolution they would obtain all they needed without limitation of their families. Their success was so complete that it was impossible to obtain audiences for birth control meetings, and the scheme had to be abandoned for nearly forty years, when the failure of socialist promises led the people to listen to us again.

In the meantime, the educated classes rapidly seized on the new doctrine and adopted family limitation for themselves to such an extent that today families of more than two children are rare among them. The doctors and clergy are now at the bottom of the fertility list. But instead of helping us to circulate the information to the poor, they have opposed its dissemination in every possible way, on medical, moral and national grounds. It is little wonder, therefore, that the selective action of birth control has so far been almost diametrically opposite to that which we intended.

Among the objections to birth control have been the medical contentions that it is physiologically injurious, and the puritanical accusation that it encourages immorality and is a defiance of "God's Moral Law."

We are in no way opposed to the orthodox moral ideal of permanent and chaste marriage; the natural equality of the number of the two sexes, and the desirability for lasting mutual support and care of children, render this the natural ideal; but we seek to achieve it not by compulsion, but by rendering it easily obtainable and the most desirable state. To the accusation that the general knowledge of contraceptive practices will increase promiscuity by "making vice safe," we simply reply that the pressure of population leads to celibacy, delayed marriage, and unspeakable housing conditions, in which chastity is almost impossible. We claim that the general knowledge that early marriage can take place without fear of large families, and the removal of poverty due to overpopulation, will do more in a single generation to reduce if not to eliminate promiscuity than all the efforts of the self-styled moralist have done in two thousand years.

The final great aim of the philosophy is to promote international harmony and to eliminate the scourge of war. Malthus had shown how overpopulation led to rivalry, strife between races and nations; and today practically all thinking people realize that overpopulation is the great cause of war. The German philosophers indeed put forward the doctrine of "the biological necessity for war," which was perfectly correct from the Darwinian standpoint. But the very diagnosis of the cause should have suggested the cure, especially as it was already beginning to operate in Germany itself; and it is the gravest count in the indictment against the rulers of Germany that they deliberately opposed the remedy in order to force on the war. We see an echo of the same attitude in the recent declaration of Mussolini in which he said that Italy was overpopulated and must either adopt birth control or expand by aggressive industrial policy or by war, and deliberately rejected the former alternative.

The Neo-Malthusian remedy for wars is simple. It considers the various nations as it would separate families in a community, and says to each of them: "Limit your families to your present resources, whatever they may be, so as to provide comfortably for your children without encroaching on your neighbors. Enter into friendly mutual alliances with these nations who are adopting the same course, for defending yourself against high-birth-rate aggressive nations. Build up international law and federation for settling international questions, and invite each nation in turn to enter the federation when it has overcome its population problem. Remove all barriers between the low-birth-rate nations, and aim finally at a universal federation where nations will appear as states of a union and frontiers will cease to have any special significance."

We birth-controllers should show that we are not merely sectarian propagandists for a narrow reform, but are animated by the highest of human ideals—the securing of happiness, ennoblement, and brotherhood of the human race. We differ in no whit from other humanitarians in our aims, but instead of basing our proposals on emotions or dogma we have based them on science or reason.

The opposition to birth control and eugenics takes many forms. Some of it is based upon religious teachings to the effect that the spark of life is God-given and not a fit subject for the petty plans of mere mortals. Some of it has its roots in the conviction that the discussion of matters pertaining to the sexes and the procreation of human life is indecent, and consequently not to be talked about in polite society. Some opposition also arises from trained scientists in the field of biology who contend that the birth control and eugenics enthusiasts not infrequently allow their enthusiasm for the possibilities of good in their cause to carry them beyond the realm of demonstrable fact into that of fancy. In the following articles, arguments indicative of

some of the different types of protest against current birth control and eugenics programs are presented.

BIRTH CONTROL—A WORLD BLIGHT ⁴

by Father John A. McLorey

BIRTH-CONTROL is wrong in itself because it is against nature. The natural effect of the marriage act, in favorable circumstances and under propitious conditions, is conception. Birth-control directly and intentionally frustrates that effect by physical or chemical means. Hence, birth-control is an un-natural sin (and a grave one to the most fundamental activities of nature); therefore the God of Nature must prohibit it with the grave sanction of His law.

But even if birth-control were not an evil in itself, it would be evil and forbidden on account of its direful results. If birth-control gets a hold on the white races of America and Europe, the yellow peril will be actualized. For most probably, birth-control will not succeed with the Orientals. They will be suspicious of the Neo-Malthusian propaganda from the west, and as bad as they may possibly be otherwise, they abhor this un-natural crime. Hence their overwhelming numbers, along with their need of geographical expansion, their envy of the rich fields of the temperate zone, their long-suppressed indignation at western aggrandizement in the Orient, their desire of revenge and their potential leadership, which in past times embodied itself in Attila and his Huns, will stir them to flood the western world; the European culture, civilization and Christianity of two thousand years will be ruined; America with its wealth and its tradition of liberty, will be submerged in a yellow sea of humanity; and some day a handful of desolate whites, cowed on some obscure mountain-top, will look across the land and see their former cities with their streets, office-buildings, palaces and churches swarming with myriads of triumphant barbarians out of the loins of Asia.

If birth-control gets a hold on the so-called better classes of America, but not on the masses, we shall need no French revolution nor Russian to project mobs into the mansions of wealth, with the torch and sword in hand and madness in their hearts. For the scions of aristocracy will thin out and perish of their own volition; and their possessions will naturally cry out for new masters. Now this is likely to occur. For they are principally the ones who, not satisfied with the natural luxury of their environment, are seeking unnatural indulgence through contraception. Shall we warn them to open their eyes and see how their system of life has worked out in the past; for instance, in New England which now should be called New Ireland; in France, which would have been submerged in the war by the greater numbers of Germany had she not been helped, and where today statesmen are legislating in vain against birth-control for the salvation of France? Shall we warn them or shall we leave them to

⁴ Adapted from an article in the *Dearborn Independent*, July 10, 1926.

their fate, under the conviction that their passing will be good riddance of a decaying limb on the tree of society?

If birth-control gets a hold on the whole race of men, the race will perish. Birth-controllors intend only to reduce population to a moderate size by their practices. But they are letting loose a tremendous malignant force which will change birth-control into race suicide. We know from observation, history and possibly from personal experience, the volcanic, devouring power of sexual passion. The downfall of Rome and Greece bear witness to it. It will drive men to the quest of pleasure without regard for children even when children will be needed. Patriotism, race welfare, religion, family, decency will not appeal to them, because they will have become unnaturally callous to all high appeals. Also they will not be able to procreate, because birth-control leads to sterility. And thus, if birth-control succeeds, the earth will become a desolate, soundless planet, drifting through space, as dead as the moon.

A WARNING TO EUGENICISTS ⁵

by Dr. E. N. Ewer

EUGENICS has bad possibilities as well as good. We are only in the infancy of eugenics, and past mistakes warn us to go very slowly and circumspectly. Particularly the birth-control movement is characterized by an urge to tamper with the biology of population growth. The extravagant claims made for birth-control by its votaries stamp it as one of the most pretentious as well as the most bizarre of cults.

The question is: do large families among the poverty-stricken, however deplorable, justify a nation-wide program of broadcasting contraceptive information without reserve? We must inquire if the information the proponents of eugenics wish to disseminate is likely to filter through to the classes they most desire to benefit, or whether it will supply another downward push to the already greatly reduced families of the well-to-do.

Grading the population from the very poor to the very rich, with the average of three children per family somewhere in the middle register, the number is supposed to go up as the means for their support goes down. The ideal would be struck if the situation were reversed. There is nothing I can see in the birth-control program which offers any prospect of accomplishing this. Neither do the propagandists manifest any concern for this phase of it.

If the widespread establishment of clinics for teaching the use of contraceptive methods is brought about, and the families in the lower brackets, so to speak, are influenced to produce fewer children, it may dangerously reduce the average. Rather we might concentrate upon other charitable measures for the improvement of facilities for proper care of poor children and their mothers at childbirth. The eugenics cult blames nearly every-

⁵ Adapted from an address to the California Medical Society, June, 1926.

thing wrong on heredity, and treats environment as an almost negligible factor.

EUGENICS AND THE BIOLOGIST ⁶

by Leonard T. Hobhouse

SO FAR as the eugenic principle advocates the substitution of rational for natural selection, it is, in the abstract, upon firm ground. Where it can be clearly established that a stock is tainted with a hereditary blemish so great as to outweigh its merits, it is desirable that the stock should not be perpetuated. That is already recognized ethically as a duty and is acted on by many individuals, in cases where there is such a taint as that of insanity. There is every reason why our knowledge on these matters should be carried further and systematized, and it is possible that in certain cases it may be found desirable to crystallize ethical sentiment in positive law; for example, in the case of such a class as the feeble-minded, where permanent care is desirable for the benefit of the individual, it may be right that, as a condition of such care, restriction from marriage should be insisted on by society in the future interest of the race. On the other hand, the use of eugenic arguments against legislation designed to replace the struggle for existence by ordered social coöperation is at bottom a misapplication of the principle.

The method of social legislation should not be to accommodate institutions to the survival of the stronger; it should be to bring the social structure into accordance with sound principles of social coöperation. In such a system those who are fit in the true sense of the term, those, that is to say, who are capable of becoming useful members of the social organization, can find their place; and it is only when all such persons are endowed with full opportunities to adapt themselves to social requirements that the failures of society can be legitimately regarded as the unfit. Those who so prove their unfitness are then legitimate objects for institutional tutelage, and it will then for the first time become possible to enter into the question of their right to propagate their like. That question would then be determined by the light that our knowledge of heredity could throw upon the future of their descendants.

These views do not appear to me to be out of accord with the sounder teaching of the more cautious biologists. They conflict only with those enthusiasts who make rash applications based on confusion of the new teaching with the old. To illustrate this contrast I cannot do better than set side by side the sociological applications which Professor Bateson would make of Mendelian principles with the deductions drawn from his remarks by an enthusiastic reviewer in the pages of the *Eugenics Review*. Let us hear first the reviewer, Mr. G. P. Mudge, in the *Eugenics Review* for July, 1909, p. 137:

⁶ Adapted from *Social Evolution and Political Theory*, Columbia University Press, 1911, pages 75-79.

"With regard to man, it is now clear that what social reform, legislation, and philanthropy have failed to accomplish, can be achieved by biology. Tell the student of genetics what type of nation we desire, within the limits of the characters which the nation already possesses, and confer upon him adequate powers, and he will evolve it. It is not too much to say that, if he were instructed to evolve a fit nation, *i.e.*, one of self-reliant and self-supporting individuals, in the course of a few generations there would be neither workhouses, hospitals, unemployables, congenital criminals or drunkards.

"Students of eugenics will turn with interest to the concluding paragraph of Professor Bateson's book; there he deals with the sociological application of the science of genetics. We commend to every advocate of social panaceas and of legislative interference with natural processes this part of the book. In a few well-chosen sentences he gives expression to the judgment of every biologist, alike of the present and of the past, who has given to social problems adequate and unbiased thought. For nothing is more evident to the naturalist than that we cannot convert inherent vice into innate virtue, nor change leaden instincts into golden conduct, nor transform a sow's ear into a silken purse by any known social process. Our vast and costly schemes of free compulsory elementary education, of scholarships and evening classes, which are among these social processes supposed to possess magic virtue of transforming the world into a fairyland, may be a delusion and a danger. And so, too, may be all the other well-intentioned but costly panaceas that harass and tax and eventually destroy the fit in order to attempt, for they can never achieve, the salvation of the unfit."

Let us turn from these sweeping condemnations, these triumphant prophecies, these large assertions of the powers of the biologist, to Professor Bateson's own words, the very words to which we are referred in justification of Mr. Mudge's statement. I will take just the leading points:

"To the naturalist it is evident that, while the elimination of the hopelessly unfit is a reasonable and prudent policy for society to adopt, any attempt to distinguish certain strains as superior and to give special encouragement to them would probably fail to accomplish the object proposed and most certainly be unsafe."

Contrast this with the proclamation, "Tell the student of genetics what type of nation we require . . . he will evolve it." Let us turn back again to Professor Bateson:

"Some serious physical and mental defects, almost certainly some morbid diatheses and some of the forms of vice and criminality, could be eradicated if society so determined. That, however, is the utmost length to which the authority of physiological science can, in the present state of knowledge, be invoked for interference. More extensive schemes are already being advocated by writers who are neither Utopians nor visionaries. Their proposals are directed in the belief that society is more likely to accept a positive plan for the encouragement of the fit than

negative interference for the restraint of the unfit. Genetic science, as I have said, gives no clear sanction to these proposals.

"Genetic knowledge must certainly lead to new conceptions of justice, and it is by no means impossible that, in the light of such knowledge, public opinion will welcome measures likely to do more for the extinction of the criminal and degenerate than has been accomplished by ages of penal enactment."

With so cautious and reasoned a statement we can in principle have no ground of quarrel. We can only desire that the data may be as fully as possible ascertained and, in proportion as civic effort succeeds in reorganizing the social structure on the basis of justice and equity, it will be prepared to deal with the strains, if they exist, with which a life in accordance with equity is incompatible.

Programs of immigration restriction spring from the desire to limit population within a given nation. Unlike programs of birth control and eugenics, immigration restriction has already been resorted to as a national policy. It is a considerably less ambitious program than eugenics, and the demand for it has come rather more from the people who are in the midst of the stresses of economic life than from social philosophers. Thus labor unions and business leaders have taken very definite stands on the immigration question.

The first selection on immigration outlines the general problem of trying to control the flow of people into a country and, to some extent, out of a country. At the same time it presents some of the practical difficulties that have been encountered in the restriction of immigration. Following that is a digest of the main provisions of the present immigration law of the United States. This will serve as a setting for the discussion of some of the arguments for and against a policy of immigration restriction.

CONTROLLING THE FLOW OF IMMIGRATION ⁷

by Constantine Panunzio

THE movement of people is not a new phenomenon. Men of every known race, from every portion of the earth, have always moved. Now roving simply as nomads, now led by the tribe or nation; sometimes conquering by the sword and at others colonizing by the arts of peace, men have moved. They have moved *en masse*, in small groups, by families and as individuals. They have marched forward in the face of apparently insurmountable obstacles. They have scaled craggy and snow-covered mountains, crossed swift rivers, spanned broad continents, traversed once

⁷ Adapted from an article in *The Standard*, October, 1926.

impassable oceans. Thus the human race has spread from its original habitat to the four corners of the earth, forming races and sub-racial groups, giving birth to new states, perpetuating institutions, mobilizing and utilizing the labor and productive forces of mankind.

With the development of transportation in the last century, with the industrialization of new countries, the dissemination of knowledge, the democratization of society, the liberation of the worker, and with the breaking down of the self-sufficiency of distinct localities, the migration of peoples has been greatly accelerated and men have moved with a rapidity and in a volume never experienced before. Transportation facilities have distributed population as well as products, carried peoples to the food as well as food to peoples. With the rise of marked inequalities between places, not only have necessities been imported into the localities in need from lands having a surplus, but also a portion of the people have emigrated. The tendency to equalize the conditions of men has become world-wide, and migratory movements a world problem.

During the last century, by far the greater part of this stream travelled to America, where the opportunities for a larger life were greater than elsewhere. As the call of the New World opportunity spread deeper and deeper into the Old World community, reaching every city, town, village and hamlet, millions of men, women and children—some thirty-five million during the last one hundred years—have come to America. To them America spelled life; the New World was not merely a name, but an awe-inspiring vision.

Different governments have at various times sought to stem this tide of men. The fact that nations have again and again tried to stem the outward flow of their people is not fully realized, especially in immigration countries. But such is the case. England in the days of the Colonies endeavored to prevent its subjects from leaving; and in more recent times, Germany, under Bismarck, modern Sweden, Denmark, Norway and even Italy have tried to stem the outflowing stream.

But these emigration countries have experienced great difficulties in connection with these attempts. The largest practical question they have had to face is: should they force their people to remain within their territories? Should they set up armies to compel their subjects to stay in zones of starvation? Moreover, of the numberless candidates presenting themselves, whom should they permit to leave and whom should they force to remain? How may a government check clandestine emigration, guard the channels of exit, prevent the work of promoters, the dissemination of false information, the fabrication of false documents? In the face of the basic urge which drives people to seek better living conditions, the governments have been practically helpless in stemming the outward-flowing tide of men.

And the wonder is not so much that governments have failed to control the outward flow of their subjects, but rather that they have done so well. There is every reason to believe that, considering the conditions obtaining, a country like Japan has accomplished miracles in this respect. Nor is

it difficult to understand why an enlightened nation like Norway has frankly admitted the utter uselessness of prohibiting emigration by arbitrary and artificial means.

Receiving countries also have attempted to control inward movements. First they barred out those who were liable to become public charges and those who for physical, moral, and more recently for political reasons were deemed undesirable. State after state, Belgium, Germany, Italy, have, moreover, raised barriers in order to protect their own laboring classes from the competition of outsiders.

For nearly half a century the United States in particular has endeavored to control the inward flow. First it barred out certain undesirable classes—paupers, criminals and mental defectives. Then it prohibited the entrance of contract laborers. Later it added the illiterate and the politically and morally undesirable, to the debarred classes. And finally, by the laws of 1921 and 1924, it sought to set definite limits to the number of admissible immigrants, and to exclude certain sub-racial groups in part and specific races entirely.

The difficulties experienced from emigration and immigration afford a basis by which we may analyse the various proposals for the regulation of the human stream. There are those, particularly in the United States, who, still adhering to the mechanistic concept of migration, seem honestly to believe that by building a higher dam or strengthening the present one the flow will be arrested. The Sixty-eighth Congress appears to have had this faith. That Congress appropriated one million dollars in addition to previous appropriations, solely for the purpose of strengthening the border patrol, saying in substance, "We are bound to restrict immigration and therefore we will build a strong cordon beyond which no one can go."

There are those, on the other hand, who, taking a broader view, call attention to the fact that it is not a matter of keeping a Thermopylæ pass against a small organized army, but rather one of guarding nine thousand miles of border against individual particles of human dust which are blown into America by the urge of life itself. The United States Secretary of Labor may well say, as he is reported to have said, that "If we had the Army on the Canadian border and on the Mexican border, we couldn't stop them; if we had the Navy on the waterfront, we couldn't stop them." In fact, could even a Chinese wall, nine thousand miles in length and built over rivers and deserts, on mountains and along the sea-shores, check the incoming stream or stem the potential flow of humanity?

A second remedy is proposed, that of placing contiguous territory, Canada, Mexico, the countries of Central and South America, *et cetera*, on a quota basis. At present all the natives of contiguous territory who are otherwise admissible under the law, may enter. The proposal would place quota restrictions upon them. This, again, would seem only to complicate the problem further, rather than to solve it. Considerable difficulty is already being experienced in preventing the entrance of Europeans through contiguous territory; and unless these countries should also adopt stringent restrictive immigration laws, large deposits of European coun-

tries will still continue to press against the United States borders. With contiguous territory placed on a quota basis, would not the pressure be increased? And if it is difficult at present to protect the borders, and if immigration officials find it impossible to discover who is and who is not an immigrant as the ferry at Detroit plies back and forth between Canada and the United States during rush hours, it is hard to see how this proposal could possibly do other than complicate, rather than solve, the problem.

A third solution proposed is that all aliens in the United States should be registered once a year. The Secretary of Labor advocates this, and President Coolidge has hinted at the possible necessity of adopting this expedient. By this method the seven million aliens now residing in this country would be required to register each year; those found without credentials of legal entry would be subject to apprehension and deportation.

"Found without credentials?" But how "found?" This would necessitate another army to patrol the streets of every city. The expense entailed would be enormous; the problem of personnel tremendous. For these reasons alone, immigration officials seem to be unfavorably disposed towards such a system. In addition, what to do with those apprehended without proper credentials? Deport them? But suppose that thousands are so found? What could the United States do with them? The Commissioner-General of Immigration states that it would cost half a million dollars to deport "between two and three thousand" Chinese seamen who are known to be in this country illegally. How much would it cost to apprehend and deport hundreds of thousands? But even more, would not such a method be but a step in the direction of the espionage system which has been the bane of continental Europe and from which that continent is but beginning to liberate itself? Would such a remedy produce the desired result? Or would it perchance produce evils far more fatal to the life of American democracy than those it would seek to cure?

SOME PROVISIONS OF THE IMMIGRATION ACT OF 1924

Sec. 3. *Definition of "Immigrant."* When used in this Act, the term "immigrant" means any alien departing from any place outside the United States destined for the United States, except (1) a government official, his family, attendants, servants, and employees, (2) an alien visiting the United States temporarily as a tourist or temporarily for business or pleasure, (3) an alien in continuous transit through the United States, (4) an alien lawfully admitted to the United States who later goes in transit from one part of the United States to another through foreign contiguous territory, (5) a *bona fide* alien seaman serving as such on a vessel arriving at a port of the United States and seeking to enter temporarily the United States solely in the pursuit of his calling as a seaman, and (6) an alien entitled to enter the United States solely to carry on

trade under and in pursuance of the provisions of a present existing treaty of commerce and navigation.

Sec. 4. *Non-Quota Immigrants.* When used in this Act the term "non-quota immigrant" means:

(a) An immigrant who is the unmarried child under 18 years of age, or the wife, of a citizen of the United States who resides therein at the time of the filing of a petition under Section 9;

(b) An immigrant previously lawfully admitted to the United States, who is returning from a temporary visit abroad;

(c) An immigrant who was born in the Dominion of Canada, Newfoundland, the Republic of Mexico, the Republic of Cuba, the Republic of Haiti, the Dominican Republic, the Canal Zone, or an independent country of Central or South America, and his wife, and his unmarried children under 18 years of age, if accompanying or following to join him;

(d) An immigrant who continuously for at least two years immediately preceding the time of his application for admission to the United States has been, and who seeks to enter the United States solely for the purpose of carrying the vocation of minister of any religious denomination, or professor of a college, academy, seminary, or university; and his wife, and his unmarried children under 18 years of age, if accompanying or following to join him; or

(e) An immigrant who is a *bona fide* student at least 15 years of age and seeks to enter the United States solely for the purpose of study at an accredited school, college, academy, seminary, or university, particularly designated by him and approved by the Secretary of Labor, which shall have agreed to report to the Secretary of Labor the termination of attendance of each immigrant student; and if any such institution of learning fails to make such reports promptly the approval shall be withdrawn.

Sec. 5. *Quota Immigrants.* When used in this Act the term "Quota immigrant" means any immigrant who is not a non-quota immigrant. An alien who is not particularly specified in this Act as a non-quota immigrant or a non-immigrant shall not be admitted as a non-quota immigrant or a non-immigrant by reason of relationship to any individual who is so specified or by reason of being excepted from the operation of any other law regulating or forbidding immigration.

Sec. 6. *Preferences with Quotas.* (a) In the issuance of immigration visas to quota immigrants preference shall be given:

(1) To a quota immigrant who is the unmarried child under 21 years of age, the father, the mother, the husband, or the wife, of a citizen of the United States who is 21 years of age or over; and

(2) To a quota immigrant who is skilled in agriculture, and his wife, and his dependent children under the age of 16 years, if accompanying or following to join him. The preference provided in this paragraph shall not apply to immigrants of any nationality the annual quota for which is less than 300.

Sec. 11. *Numerical Limitations.* (a) The annual quota of any nation-

ality shall be 2 per centum of the number of foreign-born individuals of such nationality resident in continental United States as determined by the United States census of 1890, but the minimum quota of any nationality shall be 100.

(b) The annual quota of any nationality for the fiscal year beginning July 1, 1927, and for each fiscal year thereafter, shall be a number which bears the same ratio to 150,000 as the number of inhabitants in continental United States in 1920 having that national origin (ascertained as hereinafter provided in this section) bears to the number of inhabitants in continental United States in 1920, but the minimum quota of any nationality shall be 100.⁸

* * *

⁸ Section 11(b) of the Immigration Act of 1924, known as the national origins clause, has been suspended by Congress, pending detailed study of the way in which it would operate. The per cent quotas are determined by the method outlined in Section 11(a) which results in the following quotas for countries from which immigration to the United States is restricted:

<i>Country</i>	<i>Total Quota 1927-1928</i>	<i>Country</i>	<i>Total Quota 1927-1928</i>
Afghanistan	100	Liechtenstein	100
Albania	100	Lithuania	344
Andorra	100	Luxemburg	100
Arabian peninsula	100	Monaco	100
Armenia	124	Morocco	100
Australia	121	Muscat	100
Austria	785	Nauru	100
Belgium	512	Nepal	100
Bhutan	100	Netherlands	1,648
Bulgaria	100	New Zealand	100
Cameroon (British)	100	Norway	6,453
Cameroon (French)	100	New Guinea	100
China	100	Palestine	100
Czechoslovakia	8,073	Persia	100
Danzig, Free City of	228	Poland	5,982
Denmark	2,789	Portugal	503
Egypt	100	Ruanda and Urundi	100
Estonia	124	Rumania	603
Ethiopia	100	Russia, European and Asiatic	2,248
Finland	471	Samoa	100
France	3,954	San Marino	100
Germany	51,227	Siam	100
Great Britain and Northern Ireland	34,007	South Africa, Union of	100
Greece	100	South West Africa	100
Hungary	473	Spain	131
Iceland	100	Sweden	9,561
India	100	Switzerland	2,081
Iraq	100	Syria and The Lebanon	100
Irish Free State	28,567	Tanganyika	100
Italy	3,845	Togoland (British)	100
Japan	100	Togoland (French)	100
Latvia	142	Turkey	100
Liberia	100	Yap	100
		Yugoslavia	671

NOTE.—Figures from a memorandum for the press issued by the U. S. Department of State, October 27, 1927.

The next three statements present one phase of the immigration controversy; that which has to do with the conflicting attitudes of workers and employers toward the policy of immigration restriction. Organized labor, in general, has favored the enactment of laws restricting immigration, chiefly because of a belief that American workers suffer from the competition of unskilled foreign laborers who are content with a lower standard of living. Employers of large numbers of workers, on the other hand, have in the main opposed immigration restriction, feeling that it is to their advantage to have a large labor supply from which to choose. These attitudes, however, are by no means rigid or uniform. There were, in fact, many employers who united with the representatives of labor in advocating the restrictive immigration law of 1924. It is said by some that the shift in the attitude of many business leaders was occasioned by the fear that the new immigrants might tend to spread the "subversive doctrines of revolutionary radicalism" and by the hope that American-born workers would prove more tractable from the employer's standpoint. To what extent this sort of reasoning is a factor in the situation is not very well known; but the fact remains that workers and employers on the whole have taken conflicting stands on the immigration question. Of late the predominant trend of opinion has been in the direction of restriction, thus making possible the very drastic Act of

A LABOR ATTITUDE TOWARD IMMIGRATION RESTRICTION ⁹

NEVER in the history of the United States has there been such an insidious agitation for the repeal of all legislation enacted for the protection of American workers, the American people and American standards. When traced to its hidden lair it is found that the propaganda emanated from the great corporations that pay the lowest wages and enjoy the highest protection of any industries in the country.

Early in 1923 several bills were introduced in Congress which would permit the admission of 50,000 refugees, and every influence that could possibly be used to have them passed was brought into play. Sentiment was appealed to. Swarms of people from Southern Europe rushed to localities where they would come within the quota if the laws were enacted. Representatives of the Merchant Tailors' Association, the National Association of Manufacturers, and the Bethlehem Steel Company were among those who appeared before committees of Congress and asked for a law that would permit the admission of hordes of immigrants to this country. The spokesman for the Bethlehem Steel Com-

⁹ Adapted from the Proceedings of the 1923 Convention of the American Federation of Labor, reprinted in the *A. F. of L. History, Encyclopedia Reference Book*, 1924.

pany said that the company had to pay 36 cents an hour because there was not a sufficient number of immigrants being admitted to the country. He wanted such an excessive number of workers knocking at the gates of employment as to permit the Bethlehem Steel Company as well as all other corporations to fix a rate of wages acceptable to the employers. He said that when the workers in the steel industry were receiving only 28 cents an hour, they got along very well because their children were working in factories and other places. Representatives of the American Merchant Tailors' Association said that because of compulsory education laws in the United States, boys did not start to learn the tailoring trade until they were at least 14 years of age, while in Europe they began at 9 years of age or under. They wanted unrestricted immigration of skilled tailors.

The cry is coming from all parts of the country for the Americanization of the foreigner. According to the United States census, there are 13,000,000 foreigners in the United States, of whom 1,500,000 cannot speak English and 3,000,000 cannot read or write the English language. No better time could a campaign to this end be launched than at present, and its success would be made more certain by the complete restriction of immigration. Until the foreigners now in this country are assimilated, there can be no success in Americanizing the citizens born in this country. Illiteracy is growing at a rapid rate. The alarming discovery made during the war of the extent of illiteracy in the United States should be a warning to those who now urge the throwing open of our ports to still greater immigration. Congress will be called upon to decide between the greed of unfair employers and the self-preservation of our people.

THE SHORTAGE OF LABOR ¹⁰

by Elbert H. Gary

(late Chairman, U. S. Steel Corporation)

JUST at this time [1923] it is generally recognized there is a shortage of labor, although now and generally there are considerable numbers of idle men who do not ask for or desire steady work.

For various reasons many workmen have returned to their homes in foreign countries. Business here was dull, and besides, these men on account of very large wage rates had accumulated money and believed themselves to be independent.

The shortage in labor, however, has come principally as the result of the percentage immigration laws which have limited the number of workmen who would now come to this country if not prevented by the laws referred to.

¹⁰ Adapted from Hearings before the House Committee on Immigration and Naturalization, 67th Congress, Fourth session on H. R. 14273, 1923.

After some experience these laws are now believed by large numbers to be unreasonable. Ostensibly, at least, they were aimed at the sudden and large increases in the foreigners who were locating here, many of them entertaining views hostile to the idea of our Government.

These laws ought to be promptly changed. The restrictions upon immigration should be directed to the question of quality rather than numbers of foreigners coming to this country. Measures for limiting the number of immigrants to those who are clearly shown to be healthy, morally, politically, and physically, ought to be clear, strict, and enforceable; but the number allowed to come here should be equal to the necessities of our industries.

WE WANT MORE WORKERS ¹¹

by John J. Lovett

(General Manager, Michigan Manufacturers' Association)

MICHIGAN is the highest wage state in the Union, and immigration will not affect the wages. Cheap labor is not what is wanted, but necessary labor to feed the raw material to the skilled men is Michigan's problem.

The high wages paid in the industry have drained the farms of practically all available farm labor. The copper mines and iron mines in the Upper Peninsula have been seriously affected by the withdrawal from the mining operations of workers who have gone into the automobile plants and other industries.

It is imperative that the Immigration Act be changed so that a greater supply of common labor may be admitted. The process of education in America makes skilled and semiskilled workers of common laborers in a few years, and it is imperative that the common labor supply be continuously added to by immigration.

The immigration question, of course, is much more than one of mere numbers, or one of competing unskilled labor. It involves all sorts of matters having to do with race, nationality, and culture. The delicacy of these problems is illustrated by the international friction between this country and Japan as a result of the exclusion of Japanese immigrants under the Act of 1924.

Among the objectives of immigration restriction, one that is frequently mentioned is the promotion of "Americanism." Just what "Americanism" means is the source of wide divergence of opinion. Some statements suggest that its essence is obedience to the Eighteenth

¹¹ Adapted from Hearings before the House Committee on Immigration and Naturalization, 67th Congress, Fourth session on H. R. 14273, 1923.

Amendment of the federal Constitution; others, that it consists primarily of favoring a large navy, opposing government ownership and operation of electric power companies, observing "Mother's Day" and "Clean-up Week" or "not eating spools of macaroni the way those disagreeable people down the street do."

Some people who approve of certain manners and customs easily identify them with "Americanism." Others, whose ancestors perhaps arrived with the remarkably prolific company carried by the Mayflower, may have a sharp distaste for the same manners and customs, and, hence, an opposing view of the nature of "Americanism." In the concluding article of this chapter, by the Congressional sponsor of the Immigration Act of 1924, the essence of our immigration policy is described as "Keeping America American," and one interpretation of the significance of that policy is presented.

KEEPING AMERICA AMERICAN ¹²

by Congressman Albert Johnson

It is a noteworthy fact that the Immigration Act of 1924 has reduced the total influx of aliens approximately 50 per cent. But more important—aye, of transcendent importance—is the fact that the successful operation of the new law has put to an end, once and for all time, the idea that America was destined by Providence to be the asylum to which the distressed of all lands might repair. The asylum idea (some have called it the insane asylum idea) has been wiped entirely from the minds of thinking Americans.

The myth of the "melting pot" has been exploded. Face to face with the inescapable fact that the United States cannot find room, or houses, or food, for the surplus populations of the rest of the world, Americans have not hesitated to abandon the twin fallacies which seemed to mean so much a generation or two ago. We realize now, as we never realized before, that people who are unwanted in the lands of their birth have no "right" to an asylum here. We have come to appreciate at last the fact that our vaunted "melting pot" is choked with dross and incapable of pouring forth an undiluted Americanism.

The intent of the framers of the Immigration Act of 1924 was that it should, in a measure, restore the racial balance of the people of the United States. Having regard for the fact that our country was founded by immigrants from the countries of Europe which for centuries struggled toward the light of liberty, which, indeed, had established the most liberal institutions then known, it was frankly intended that immigration of like kind should be discouraged. Contrary to the belief of some, this intention

¹² From the *Congressional Record*, July 8, 1926.

was not put forward with the idea of discriminating against other racial stocks. Rather it was forced by recognition of the fact that American institutions are best appreciated by, hence safest in control of, those people who for generations have been practiced in the duties and obligations of free citizenship.

Freemen are not made in the twinkling of an eye. Striking the shackles from a slave does not at once invest him in the habiliments of the citizen born. A serf released from his serfdom still is a serf in mind, if not in body.

America was founded and preserved by men whose progenitors for centuries had been freemen. They knew the privileges of their state, but, more important, they appreciated their duties and responsibilities. Generations of struggle for liberty, generations of practice in the management of free institutions had bred in them those qualities of heart and mind which alone conceived and brought forth government of the people, by the people, for the people.

In the framing of our immigration law it was deemed essential that people of a kind like unto those founding fathers whom we delight to honor should be favored over others whose advantages in the world have been fewer or less. This is not to say that the more backward peoples are undesirable. We have not excluded them, and we shall not. But, frankly and fairly, we decline to be outnumbered or overbalanced by them.

We intend that as soon as possible America shall cease to be a polyglot boarding house; that eventually we shall become an homogeneous people.

"Keeping America American" is the essence of our immigration policy. It is the vital element in the Immigration Act of 1924. We are determined to keep America American by admitting fewer and better of what the Old World has to offer. We are determined to make America stronger; to preserve, in so far as we can, the institutions of liberty and equality that were created and held for us at such great cost of effort, toil, and struggle.

What could be more important to the world at large? How better can we serve the world than by providing thus for our own house? Certainly an America overrun by strange peoples from near and far, speaking many tongues, threatened hourly by diverse conceptions of liberty, tending toward no definite goal, crowded and harassed by the jangling and clanging of a hundred ethnic, racial, and political animosities imported from abroad, would be an object of pity and of scorn throughout the universe. It would not, because it could not, render any substantial service to the people of other lands.

But an America united and strong, daily growing more closely knit together, guarding its gates well against the malcontents and the misfits of other nations, speaking one language, and intent upon the preservation of liberty and prosperity within its borders, can and will become the pride of the world.

QUESTIONS

1. Do you think that the idea that population increases in geometric ratio while food supply increases in arithmetic ratio can be supported by the economic history of the United States?
2. What is the relation of improved technical methods, *i.e.*, making the most of what resources we have, to Malthus' theory of food scarcity?
3. Does Malthus by implication advocate birth control? If so, what sort of birth control?
4. Show how the advocates of eugenics draw upon the prestige of the word "science" to bolster their programs. Are you in a position to say to what extent their scientific claims are justified?
5. In what way do religious issues complicate the discussion of birth control?
6. List all the reasons you can which lie back of the demand for immigration restriction.
7. Some people wish America to be a "melting pot, a haven of refuge for the oppressed of all nations." Others advocate "America for the Americans." Analyze the ideas and feelings which lie back of these slogans.
8. What do the passing of the American frontier and the "filling up" of the country have to do with changes in the attitudes mentioned in the previous question?
9. If England in the early nineteenth century had been faced with an agricultural situation similar to that of the United States at present, do you think Malthus would ever have announced his famous "law of population"?
10. In what respects do problems of birth control and immigration restriction go beyond the struggle for income and the effort to alleviate this struggle?
11. "Birth control enthusiasts would do well to study the nature of economic costs in order to build a firm foundation for their programs. In some cost situations restriction of population may mean a lower per capita income with the same amount of labor; in others it may mean a higher per capita income." Is this true? If so, why? If not, why not?
12. Contrast the predominant attitude toward immigration in this country prior to the Civil War with that of today. How do you account for the great change?
13. Is the immigration problem national or local? Explain.
14. Write a paper discussing factors which you think should be taken into consideration in formulating an immigration policy for a given area. Could you get all the people in the area to agree upon the wisdom of any single policy?

WASTING LESS AND PRODUCING MORE

THIS chapter will continue the discussion of methods proposed to satisfy conflicting claims for more income, raising questions concerning the possibility of increasing the total income of goods and services to be shared. It will discuss:

- (1) The meaning of "waste."
- (2) The extent and variety of waste in our present economic system, as seen by a critic of the existing order.
- (3) Various kinds of waste and various methods suggested to eliminate them.
 - (a) Wastes affecting current production.
 - (b) Wastes affecting future production.

P LANS to limit the number of people sharing the national income by schemes to control immigration and births, such as were discussed in the preceding chapter, are necessarily fraught with very human difficulties. Some people object strenuously to the implication that they may be part of an unfortunate surplus of population. Others are skeptical of the wisdom of intrusting anyone with the delicate task of determining how population should be constituted. Issues of racial superiority and inferiority are involved, and on such issues the ablest biologists and anthropologists are unwilling to pass judgment. Immigration programs are almost invariably tied up with the spirit of nationalism, a spirit deplored by some who think it savors of war and hinders the development of friendly international economic relations.

Programs to ease economic conflict and promote "the good life" by means of increasing production might be expected to result in no such clash of opinion. Offhand, it would seem that almost everyone would accept and follow the simple slogan, "Increase Production," that there might be a greater total of goods and services to divide among the various individuals and groups. Such, however, is not the case. While there is no lack of applause for the abstract idea of increased production, enthusiasm frequently wanes and sometimes vanishes entirely when the practical details of programs to increase production are set forth. For many people, short hours and pleasant working conditions are quite as much to be desired as larger houses. There is general agreement, of course, on the proposition that human

and other resources used in the production process should be mobilized so as to yield the largest possible net results. "Efficiency" in production is currently praised and "Waste" condemned.¹ Enthusiastic acceptance of the idea of "efficiency," however, does not carry with it agreement on a definite working program. Even disinterested technical experts have different opinions regarding the nature of waste and ways in which it may be eliminated.

From the point of view of a business enterprise, any action hindering the realization of maximum profits is wasteful. Grapefruit may be allowed to rot on the ground because growers think that shipping them to market would cause a slump in price. Similarly, factory managers may find it advantageous to curtail operations, throwing men and machines into idleness in order to maintain prices. Under certain circumstances, such a policy may conserve profits and be highly desirable from the stockholders' point of view. At the same time, others condemn such a policy as extremely wasteful because it promotes idleness and limits production. Consequently, in discussing problems involving waste it is necessary to distinguish between what is "wasteful" in the sense that it is unprofitable to any particular individual or group and what is "wasteful" in the sense that it limits the total production of goods and services.

Even when the discussion of waste is confined to limitations upon total production, several general questions remain to be answered. Is it wasteful to achieve maximum production this year at the expense of the coming years? This question is most significant in discussing the utilization of natural resources which are not automatically replaced from time to time. There is a fixed amount of coal in the ground; therefore the present rate of mining will ultimately affect the future rate. The case of iron ore is similar. On the other hand, tides will presumably continue to ebb and flow and the generation of electricity by the tide will not decrease the amount of power available from the tides in the future. Consequently, in passing judgment on the efficiency of production at present it is necessary for a complete analysis to consider to what extent the possible heritage of future generations is being destroyed.

Another question always involved in the consideration of waste is that of the alternatives people have in mind when characterizing particular practices as "wasteful." Some writers draw dismal comparisons of the present with an ideal scheme to be realized, perhaps, in the distant future, while others congratulate the world on the effi-

¹ Waste is a broad term, referring to inefficient use of resources in consumption as well as in production. In this chapter only casual attention is devoted to consumption wastes, which have been treated previously in some detail.

ciency of modern methods compared with those of the past. In making a study of waste in industry, a committee of engineers compared existing practice throughout a given industry with the best actual practice in any firm, and regarded waste as "that part of the material, time, and human effort expended in production represented by the difference between the average attainments on one hand and performance actually attained on the other."² Of course, wastes involved in the lack of coördination between different industries could not be readily compared with the best current practice unless reference were being made to actual practice in some other country. Very often comparison must be made with ideal or nonexistent conditions, a fact which makes it necessary to scrutinize standards very carefully.

Apart from the difficulty of establishing standards for measuring waste, programs of waste elimination are beset with the further difficulty that many people have "vested interests" in having things done as they are, wasteful or not, and many more are so overcome by inertia as to be unmoved by the promises of efficiency experts. For example, present advertising methods, which are regarded by some people as a prolific source of waste, are as a general rule defended by the advertising men, advertisers, and publishers for whom they are profitable. Newspaper publishers, who receive the larger part of their income from advertising, are not generally disposed to take chances on an overhauling of the present advertising system. At the same time, consumers who might (or might not) gain by a change are either indifferent to possible wastes in the present system or not well enough organized to express their views effectively. Under such circumstances a waste elimination program is faced with almost paralyzing obstacles.

Programs to eliminate wastes by increasing the efficiency of labor also involve serious complications. Although experts assert that industrial workers in many lines could greatly increase the total production and therefore the total of products to be divided if they were minded to apply themselves to the task in hand, the workers frequently decline to approve such procedure. The not infrequent attitude of "just enough work to get by with the foreman" is hardly one of mere whim or perversity. It arises out of a genuine fear that the worker, by speeding up, will "work himself out of a job," or that he will find in his pay envelope no tangible reward for the increased contribution he has made. Such fears, in addition to the rather widespread human inclination to work no harder than seems to be necessary, often restrain wage workers from becoming enthusiastic partners in problems of increased production.

² *Waste in Industry*, copyright, 1921, by the American Engineering Council of the Federated American Engineering Societies, page 3.

In spite of the opposition of interested parties and the widespread indifference to the problem of waste, conscious planning has eliminated certain practices regarded by many as wasteful. For example, the twelve-hour shift in the steel industry, thought by many people to be needlessly destructive of human resources, has been largely abandoned. Much apparently unnecessary variety in products has been eliminated recently. Such changes are hailed by some as evidence that rapid progress is being made in waste elimination. They warrant no such conclusion. It is possible that as some wastes grow less, others are increasing. Sales efforts of modern times, for example, seem to some observers to involve much greater waste than those of earlier days. No statistical measure is at hand to show us whether we are now wasting more, absolutely or proportionally, than before. The statement that production per capita, per worker, or per man hour has increased rapidly during recent years does not necessarily mean that waste has decreased. It may be merely that machines have replaced men in the production process. Waste may actually have increased through careless management and operation of industry.

In the first quarter of the twentieth century the physical volume of production of farms, factories, mines, and railroads in the United States increased by 140 per cent, while population grew by only a little over 50 per cent. Thus, in 1925, production per capita was nearly 60 per cent greater than it was in 1899. In the same period—1899 to 1925—output per worker increased 80 per cent.³ Recently an attempt has been made to measure changes in production per man hour. If we represent the output per man hour in each of the several industries as 100 in 1914, the figures for 1925 would be as follows: rubber tires 311; automobiles 310; petroleum refining 177; cement 158; steel 153; flour milling 139; leather working 128; can sugar refining 127.1; boot and shoe manufacturing 117; slaughtering and meat packing 111.⁴

Although such figures do not necessarily indicate any lessening in the amount of waste, much evidence is available to make a case that rapid headway is being made in waste elimination. For example, Stuart Chase, author of an imposing catalog of wastes presented in the first article which follows, states that "We have to record a number of improvements in the technical operation of industry which operate to reduce waste, friction, and loss. There is, for instance, a growing tendency in industry to promote members of the managing staff on

³ Data taken from an article by Woodlief Thomas in the *American Economic Review Supplement*, March, 1928.

⁴ Data taken from *Industry Comes of Age*, by R. G. Tugwell, Harcourt, Brace and Co., 1927, page 3.

the basis of merit and ability rather than on the basis of seniority and pull. There is sound work being done in adjusting jobs to workers, following biological and psychological studies in rhythm, muscular coördination, the chemistry of fatigue. There is more and more standardization being introduced into grading raw materials and into all sorts of intermediate industrial processes.

"There is less trade secrecy and more exchange of technical information than there used to be. There is a far greater readiness to scrap obsolete plants and machinery. There is more hand-to-mouth buying, resulting in smaller inventories and less speculation and loss. Henry Ford turns raw coal and iron into finished motor cars in twenty-four hours, and thus avoids sinking his capital into great stocks of inventories. His example is being extensively imitated. There is more pre-planning, budgeting, cost control, in industry." ⁵

Those who see "less waste and more production" as a hopeful plan of eliminating economic strife assert, however, that past accomplishments are trivial when compared with the possibilities ahead. A canvass of the working of our present economic system offers much to support this view. After a general survey of the possible wastes now existing, we shall proceed to more detailed discussions of a few of these wastes and of proposals of plans to reduce them.

The following article outlines one view of the extent and variety of waste in our present economic system. It also introduces a type of waste not touched upon before in this chapter, namely, the production of "illth," which limits the production of "wealth." These terms necessarily involve judgments as to what products are "good" and what "bad."

CHANNELS OF WASTE ⁶

by Stuart Chase

JULES VERNE once wrote a story which he called the Mysterious Island. It was about four men abandoned on a desolate spot of land on the Pacific. Unlike Robinson Crusoe, they had no wrecked vessel to draw supplies from; they landed with their bare hands. But there were growing things, animals, minerals—the immemorial background of human life. And in the brain of the engineer who led the party there was science. It was a desperate struggle—but step by step they forced back cold, hunger and desolation, and in the end transformed their island into a pleasant home which yielded food, shelter, clothing and comforts. To meet the demands of the Mysterious Island, every member of the balloon-wrecked

⁵ Adapted from an article in *The World Tomorrow*, March, 1928.

⁶ Adapted from "Channels of Waste," *The Survey*, May 15, 1926.

crew put his shoulder to the wheel. On each man's labor the survival of the group depended.

But suppose that one had given all his energy to making mud pies; one had spent his days in sleeping on the beach; one built a house on the plain by bringing stones from the top of a hill; while the last, in his haste to clear a field, burnt all the timber on the island. Four madmen! Yes, mad enough when seen in miniature. But in our great society, these are precisely the things which untold millions of us in America are constantly doing. These mad acts typify the four main channels of economic waste.

The mud-pie maker represents the man power which goes into the production of needless or actively harmful things—the production of “illth” rather than wealth, to use Ruskin's term. The sleeper represents the man power which on any given working day is doing nothing, chiefly by virtue of unemployment and so not willfully idle. The house builder represents the excess man power required to produce an equal volume of sound goods and services because the technical arts—the best way of doing the job—are not made use of. In this category falls the whole case for scientific management, regional planning, the coördination of production to requirements. The fire builder represents the waste of natural resources—a channel already made vivid by the researches of the conservation movement. Let us consider each in somewhat more detail.

First, there are wastes in consumption, or “illth.” How much of the gross total of our economic output is wealth in the sense that it aids life rather than death; health rather than sickness; beauty rather than ugliness; knowledge rather than superstition? For the deliberate manufacture of death we have military mechanism of an almost sublime destructiveness; for the manufacture of sickness, we have a flourishing patent medicine industry, together with perhaps the gaudiest conglomeration of thought-saving, spine-pounding, electric-vibrating, gland-shooting quacks which the sun ever shone on; and we have, it is alleged, three million persons made ill annually in the United States by adulterated food products. For the manufacture of ugliness we have unparalleled resources—from brown derbies to the city of Pittsburgh. For the manufacture of superstition we have phrenologists, table tippers, swamis in bath robes, personality developers, correspondence schools, “new” psychologists, projectors of business cycle curves, and the Fundamentalist movement—to name only a few.

Thus, so soon as we try to mark off illth from wealth, the sheer economic effort which flows into the former begins to take on very considerable proportions. No two observers will ever exactly agree on the kind of work which results in illth. This channel is inevitably and eternally disputatious. To my mind a certain fraction, in some cases a very large fraction, of the human energy devoted to the following fields is wasted. But I have no hope that the reader will agree with me *in toto*. Space does not permit me to do more than name the headings.

The narcotic drug traffic.
 The patent medicine traffic.
 The higher reaches of the alcohol traffic (say above wines and beers).
 Crime and commercialized vice.
 The adulteration of goods.
 Quackery—medical, religious, financial.
 The military establishment.
 Commercial speculation and gambling.
 Super-luxuries—and their cheap imitations.
 Artificially stimulated fashions.
 Commercialized recreation.
 The overhead services and professions, law, accountancy, etc.

Then there are the wastes of idleness. In an industrial society the most obvious justice seems to require, from the able-bodied at least, some useful effort in return for useful things received. Any exact measurement of this exchange as between individuals can only lead to a good deal of nonsense, but the fact that some *quid pro quo* should be rendered obstinately persists. To be idle without rhyme or reason, to take and not to give, has in all societies, everywhere, been a mark of waste, and has called forth unheard-of efforts on the part of the learned logicians to support resplendent idlers in the face of the popular conviction. Strangely enough, however, in our going economic mechanism the deliberate idler constitutes only a small proportion of the total man power which on any given working day is doing nothing. The great majority are idle against their will and inclination, as a list of the chief classes makes clear:

Unemployment—seasonal.
 Unemployment—cyclical.
 Unemployment—intermittent.
 Unemployment—turnover factor.
 Unemployment—residual.
 Strikes and lockouts.
 Idleness due to preventable accidents.
 Idleness due to preventable sickness.
 Shop absenteeism.
 The idle rich.
 The gentlemen of the road.

Only the last three can be classed as voluntarily idle.

Next come the technical wastes. When we consider the wastes in the technique of production and distribution, we ask, first, what is the excess man power required to make and to move the nation's quota of sound goods and services because the technical arts—to say nothing of plain common sense—are not made use of? Ever since Frederick W. Taylor laid down the principles of scientific management, this question has been

gathering headway. The work of the Federal American Engineering Societies under the leadership of Mr. Hoover has recently brought the whole problem into sharp focus. The principal sub-channels under this third main heading of waste appear to be:

Inadequate knowledge of consumptive requirements, resulting in seasonal and cyclical "peak loads."

Excess plant capacity, overloaded inventories, restriction of output, dumping.

Standardization failures.

Lack of material control, lack of cost systems, and of research facilities.

Failure to utilize machinery instead of "cheap" labor.

Tariff and trade barriers.

Neglect of regional and community planning, city congestion.

The "profitable obstruction" of technical knowledge.

Too many middlemen and retail stores.

City distribution methods—particularly of milk.

Cross hauling, and neglect of waterways for bulky freight.

Too much high pressure salesmanship, advertising, installment selling.

This last category is highly disputatious, but even bankers are beginning to wonder what is to be the end of sales forcing through purchases on the installment plan. Meanwhile, the president of the largest milk company in Milwaukee reports that during 1924 he took 28,000 customers away from his competitors by high-pressure advertising, but his competitors, using the same method, took 25,000 customers away from him. The net gain to his company was 3,000 customers, while the cost of milk was burdened with 53,000 useless sales. There was no increase in milk consumption by the community at all.

The waste of natural resources is the channel of waste which is by far the most completely mapped of them all. The melancholy researches of the conservationists into coal, oil, lumber, soils, fisheries, minerals, natural gas—are duly accredited and widely acknowledged. There are doubtless other channels, but these four seem to comprise the major sources of economic loss and leakage.

With these four main channels of economic loss and leakage in mind, suppose we take an airship and cruise leisurely over the United States. Suppose we forget money and credit for the moment, and fix our attention upon the physical factors of geographical setting—the industrial plants, railways, roads, water systems, power lines, stores and office buildings built thereon, and the behavior of some 110 millions of people in respect to these things. Of the 110 millions, some 40 millions of adults are more or less gainfully employed, another 20 million women are hard at work

in their homes, while the balance constitute dependents—children, old people, defectives.

Granting that the purpose of economic activity is to supply needful goods, granting the present state of the technical arts, and granting the desirability of securing a maximum of goods with a minimum of effort, how far does the organization of the plant below us and the economic behavior of the swarming millions fulfill these postulates?

At this point we crash headlong into the distinction between waste as pure theory, and waste as a problem offering practicable solutions. With the reader's permission I should like to speculate on both aspects.

The pure theory of waste would require that we take such a document as J. Russell Smith's *North America*, which sets forth the type of crops, forests, manufactures and what not, best suited to each geographical region. He knows nothing of political boundaries, but only considers the optimum conditions for the animal man in his immemorial background of climate, land, forest and water. It would not be an inconceivable task to locate on paper 110 millions of people in those areas and regions which Professor Smith finds most favorable to fruitful economic development and to human health and energy and to set them to work—first on capital outlays, and then on the completed plant—which would produce a maximum of economic goods with a minimum of effort and cross hauling and friction. Such a plan for America is conceivable. Its outlines are capable of constituting a standard by which actual conditions as we see them from our airship can be compared, the margin between the two constituting the factor of waste. . . . *Pure waste*, of course, without considering the practical problems of the capital transition, the population shift, or the psychology of social control.

Such a conception is akin to the theoretical thermal energy of a ton of coal. The energy is undoubtedly there, but no engine has yet been invented, or ever will be, which will reclaim the full 100 per cent. Meanwhile, it presents a permanent target to shoot at, a perpetual stimulation to inventors. Similarly, this vision of a great land, ordering and controlling its economic life on the principle of maximum output with minimum effort, constitutes a useful stimulation to the statesmen and the engineers of the future.

From the standpoint of a planned continent, a competent engineering survey would show a waste of man power and of materials which might serve to treble, quadruple the output of sound goods and services, if it would be abated in total, and that with a far smaller relative exhaustion of natural resources. But it cannot be abated in total, any more than we can get 100 per cent of the thermal energy out of coal. What, then, are the practicable limits of its abatement? Here we leave our dizzy bench mark of pure theory and drop down to the more seemly levels governed by the deplorable incapacity of mankind in the mass to control its environment or adequately to utilize the inventions it has made.

Let us take a cautious bank president's view as the lower limits of

practicability. Let us put him in the observer's seat and ask him to assess the channels of waste which we have outlined. We show him illth. Here are groups of people making deleterious patent medicines, adulterated foodstuffs, shoddy clothing, jerry-built houses, stimulating fashions and seasonal fluctuations, peddling opium, fabricating war material, editing tabloid shockers, selling blue-sky stocks, booming swamp lands in Florida; here is the hard working man and woman power of crime and prostitution. How much, Mr. President, is waste? How much can we hope to prevent?

We show him the idle: Can the Federal Reserve system check the ravages of the business cycle? Can more brains in personnel management reduce hiring and firing losses? Can safety devices reduce industrial accidents; can occupational diseases be abated?

We call his attention to technical method: Is there any future to scientific management? Do we really need one retail store for every twenty-six families in the country? And is the present rate of exploitation in coal, oil, lumber, soils, inevitable and necessary?

As item after item crosses his vision, one suspects that even the most cautious of bank presidents—granting he had any imagination at all—will agree to quite a respectable margin of waste, and admit that a certain fraction of it is preventable.

Between his estimate as a minimum, and the upper limit of pure theory as a maximum, the truth of the matter must lie. The engineering type of mind will tend to the higher registers, the hard-boiled business man to the lower. Any accurate quantitative assessment lies forever beyond calculation—if for no other reason than that every advance in the technical arts, every new method of by-product conversion, every tapping of new sources of power, shifts the basis of assessment.

I have made elsewhere a quantitative summary of waste from the standpoint of what has been called a functional industrial control—a standpoint which lies rather beyond the bank president, but decidedly within the engineering maximum. By building up estimates class by class, a total waste of about half the man power of America was arrived at, but I have no illusions that this is more than a crude guess. That a wiser industrial control holds out the possibility of doubling the standard of living—and that within the calculable future—does not seem sheer dreaming as the facts pass item by item under review; although in another mood one may question if there is the latent power in mankind even partially to direct its economic destiny.

Yet functionalism has practical aspects. Functionalism might be defined as an economic system which has grown self-conscious, which has come out of the stage of astrology, panic, blind luck and totem worship into the stage of forward planning. That the technique does not transcend human administrative capacity was amply demonstrated by the war, when the Supreme Economic Council of the Allies flung a functional control around the products of half the world. Whether it can operate on

the grand scale with only the pedestrian incentives of ordinary peace times is still an open question—though the Incas did it once, and Denmark is close to achieving it today. It stands as a perpetual challenge to the statesman, the engineer, the labor leader, the social scientist.

A few of the possible wastes found in the long list presented in the foregoing article will be examined more closely in the balance of this chapter. Some of these are reflected in current production. Others are of importance primarily because of their possible effects upon future production. Reckless extraction of minerals, for example, may swell the current total of production, but at the expense of future generations. Perhaps scientists will devise substitutes for minerals now being rapidly exhausted so that future production will not suffer. Such a fortunate development, however, is uncertain enough to make the current depletion of exhaustible natural resources a problem of concern for those who are interested in the public welfare of the future.

There is, of course, no clear-cut distinction between waste affecting current and waste affecting future production. Preventable illness, our first subject of discussion, may affect future as well as current production by impairing the heritage of good health, and hence the productive capacity, of generations not yet born. Current production is adversely affected by sickness which calls for the services of a doctor and enforces idleness on the patient. Much of the waste attributable to illness could be eliminated by organized health programs according to the writer of the following article, who is associated with a large insurance company. For an insurance company general good health is a business asset. Is this also true for the medical profession? This question might be borne in mind in considering possible attitudes toward the problem of waste through sickness.

SICKNESS AS A SOURCE OF WASTE⁷

by Louis I. Dublin

IT WILL be interesting to estimate the total economic loss sustained in this country on account of illness. Some years ago Dr. Frankel and I made a series of studies on the extent of sickness among a half million insured persons. The figures showed that about two per cent were constantly sick. Other observers, following similar methods, have confirmed our results, namely, that the average individual in the United States loses about seven days each year from sickness involving inability

⁷ Adapted from "The Economics of World Health," *Harpers Monthly Magazine*, November, 1926.

to work. There are additional days of discomfort which interfere more or less with a person's duties, but these were not included in the statistics. Converted into economic terms, this means that there is a loss of two per cent of total current production. This, in round numbers, amounts to more than a billion and a quarter dollars annually in the United States. To this figure should be added the cost of such items as medical care, hospital service, drugs and appliances and the like. To ascertain the extent of these expenditures, we made an investigation of the cost of sickness among a group of people and found that the average annual expenditure was \$19 per capita for medical and nursing care and other items necessary in illness. This figure is probably higher than the average for the general population because the group studied had a rather favorable economic status. But even if half this figure be used, say in round numbers \$10 per capita, the total cost of medical care, including all items, would amount to more than a billion dollars a year. We may, therefore, say with confidence that sickness costs directly in lost wages, in reduced production, as well as in the necessary care, a total of two and a quarter billion dollars a year.

Huge as these figures are, they do not cover the total which should be placed to the account of illness. In many instances, sickness causes premature death, removing individuals in their prime, when they have real and large economic values. I have calculated that about one-third of the deaths which occur every year, even under present conditions, are preventable. To be sure, the great bulk of such preventable deaths are in infancy and childhood. Having due regard for the value of life at each age period, I estimate that the total capital value of the lives which can be saved annually through the application of modern preventive medicine and public health measures is over six billions of dollars.

One would think under such conditions that no effort would be spared to conserve our living resources. But we have scratched only the surface of the possibilities in this direction. It would be quite unfair, however, to give the impression that nothing has been accomplished. There is already abounding evidence that the work of the public health authorities to prevent illness and conserve life, considered from a purely economic viewpoint, pays large dividends.

Possibly the most striking demonstration of the effectiveness of the modern health campaign is the experience of the Metropolitan Life Insurance Company, with its millions of industrial policy holders. Seventeen years ago, this organization instituted a program of health education and nursing services for its working-class members. This business organization has expended altogether over twenty millions of dollars in this campaign. During this period the mortality rate has declined more than 30 per cent and the accumulated saving in mortality between 1911 and 1925, which can be ascribed only to the welfare work of the company, has totalled the amazing sum of 43 million dollars, or twice the total expended.

These achievements in the field of public health, both official and private, have completely changed the life of the average citizen in the modern State. People in our country, at least, no longer live in dread of the plague, of cholera, of yellow fever, of virulent smallpox or of pernicious malaria, and a host of other specters. Increased efficiency and huge productivity, uninterrupted by illness or preventable death, have ushered in many advantages which follow from a high level of economic well-being.

In spite of these achievements, there is still a large field to cultivate. Tuberculosis still causes a hundred thousand deaths annually and a loss of about two and one-half years in the average expectation of life of the entire community. Accidental deaths are becoming more frequent with the extension of the use of the automobile and the development of industry. The elimination of accidents would add more than a year to the average expectation of life. A goodly proportion of the deaths from heart disease, certainly those which occur at the younger ages, are preventable. If we were but willing to utilize the knowledge which we have of preventive medicine in the life of the American people, we should raise the expectation of life from its present point of 57 or 58 years to close to 65. The people of New Zealand are very close to such an achievement at the present time.

We are confronted, therefore, with a very real situation. We know how great is the value of human life. We know how great are the current losses from sickness and death. We have the knowledge and necessary resources for the control of disease. Obviously we must put the knowledge to work. That is the program of the public health movement of the immediate future. Today, public health work is in its infancy in spite of its achievement and the demonstration of its power. Most American communities still have political health administrations, inadequately financed, inadequately manned. Less than fifty cents per capita probably represents the total expenditure of the American people for public health. The money spent for medical service is almost altogether for the care of disease and not for its prevention. The relationship were better reversed. Expert opinion of public health officials indicates that an expenditure of \$2.50 per capita wisely directed through organized channels against the preventable diseases and for public health education would reduce the annual death rate two points per thousand and correspondingly increase the expectation of life from five to seven years. The money value of the added years of life, as we have seen, runs into billions of dollars. There is no greater opportunity for a quick and more certain return on any investment than an investment in public health.

In considering possible wastes affecting current production, present advertising methods are frequently scrutinized. Whether or not the resources devoted to advertising are wasted in any important degree is a question which has only recently provoked discussion. Certain

critics maintain that the bulk of advertising effort is devoted to forcing one particular brand of product upon the consumer rather than another, and that the consumer pays for this. The defenders of advertising assert that it really educates the consumer and even saves him money because of the economies of large-scale production which advertising makes possible. The critics reply that only a small fraction of advertising is informational or "educational," and that better information could be supplied with much less effort by some impartial and expert agency. Under such a scheme, they assert, great savings would result, and there would be no reason to suppose that the tendency toward large-scale production would stop. The controversy is outlined in more detail in the statements which follow.

WASTES OF ADVERTISING ⁸

by Stuart Chase

THE advertising industry, "viewed from an aeroplane," would be seen to consist of some 600,000 workers; writing copy, canvassing for clients, designing layouts, painting pictures, engineering campaigns; supported by printers, compositors, paper makers, chemical workers, lumber-jacks, railroad men, carpenters, sign-painters, electricians, lithographers, bill-posters, woodworkers, paint-makers, mail clerks, letter carriers, telephone operators, stenographers, psychologists, and efficiency experts—to name only a few. Advertising keeps the whole 600,000 busy. If they lived in Denmark—where advertising is restricted—they would have to turn to some productive occupation. In other words, the industry reaches down into the ranks of the gainfully employed, picks up a half-million-odd workers, and says to them "Now shout! And furnish us the paper, ink and paint for shouting."

Meanwhile, the purchasing power of the country does not materially vary. There are just so many dollars to be spent. Advertising creates no new dollars. In fact, by removing workers from productive employment, it tends to depress output and thus even lessen the number of real dollars. What it does do is this: It transfers purchasing power from A to B. It makes people start buying Mogg's soap instead of Bogg's soap. Every drug store carries some sixty kinds of soap and thirty-five kinds of tooth paste. It makes people stop buying shaving soap in mugs, and starts them buying it in tinfoil sticks. It can make A rich and ruin B. With a fixed and relentless number of dollars to play with, it can shift these dollars all over the map. But as Veblen points out, the game is played in a closed market. You cannot lift yourselves by your boot-straps. Further, "in such a closed market, the volume of purchasing power will be narrowed by approximately the aggregate cost of salesmanship." And Veblen quotes patly enough a remark at a recent con-

⁸ Adapted from *The Tragedy of Waste*, copyright, 1925, by the MacMillan Company. Reprinted by permission.

ference of one of the big New York agencies: "Blank has the market. It is our problem to dislodge him."

Advertising would not disappear in a functional society. It would simply shrink to perhaps ten per cent of its present volume and let the other 540,000 people go back to productive work. The true function of advertising, as we see it, lies in the dissemination of news about coming events, new inventions, new products. Theatre and concert advertising, new books, a campaign for public hygiene, a safety campaign, six months' space for a new synthetic food, for an alcohol engine that was cheaper than gasoline—would be tolerable and welcome. National advertising for the education of the consumer, if conducted by some important scientific body, might conceivably provide a great channel for eliminating wastes in consumption. But nine-tenths and more of modern advertising is largely competitive wrangling as to the relative merits of two indistinguishable and often indistinguishable compounds—soaps, tooth powder, motor cars, tires, snappy suits, breakfast foods, patent medicines, cigarettes.

It has been widely claimed that advertising is a public economy because it makes for large-scale production, with accompanying lower unit costs. By increasing sales through advertising, factories are enlarged, mass production instituted, overhead reduced, and many economies introduced. This is no mean argument if true. The difficulty is to find concrete examples of such cost reduction. The Congressional Joint Commission of Agricultural Inquiry, after very extended research, says: "It is significant that those trades which are the most persistent advertisers carry higher percentages of operating costs than other lines."

And again, the attempt of advertisers to gain a national as against a local market for themselves, may often involve, through cross-hauling and uneconomic location, sufficiently high costs of distribution to offset the economies in low factory cost. We believe there is some virtue in the low unit cost theory, as a theory, but we have yet to see the conclusive evidence supporting it. Even if proved, the savings would apply to a limited portion of the whole advertising field.

Hothouse forcing is of the very essence of modern advertising. Roughly, the advertiser operates his forcing methods through capitalizing the following human frailties: shame, cupidity, fear, vanity, curiosity, particularly sexual, superstition, and mother love. An analysis of the 45 advertisements in a New York elevated car in October, 1923; the 116 advertisements in *Hearst's International Magazine* for November, 1923; and the 83 advertisements in the *Smart Set Magazine* for November, 1923, gave this result:

Analysis by Value:

Competitive products	233
Unique products	5
Genuine news value	6

Analysis by Appeal:

Appeal to vanity	39
Appeal to shame	22
Appeal to sex curiosity	17
Appeal to cupidity	17
Appeal to fear	8
Palpably false	44
Harmful products (not including tobacco)	28
Unclassifiable	69

It cannot be maintained that this analysis passes in any final way upon the advertising reviewed. It is merely one investigator's reaction. It does, however, give a rough cross-section of what one finds about him in the day-by-day run of advertisement.

AN ECONOMIC DEFENSE OF ADVERTISING⁹

by George Burton Hotchkiss

THE great increase in the amount of advertising in the past half century and the apparent prosperity of most companies that have advertised persistently may be accepted as evidence that advertising benefits those who use it. But are their profits offset by the losses of others? Is our billion-dollar annual expense for advertising a tax upon the public? And if wholly or partly a tax, does it benefit society enough to justify it? In short, does advertising make for public welfare?

In many minds the answer to this question is doubtful. Probably it will remain doubtful. On practically all economic questions there are conflicting opinions, not only because people do not agree as to what constitutes the public welfare, but because their different and limited vision leads them to lay different degrees of emphasis on various items in the equation. It would be hard to find two economists, professional or amateur, who are in absolute agreement on this or any other question. If they spoke their thought to each other they might paraphrase the old Quaker: "All economists are unsound but me and thee—and thee's a little unsound."

To me personally, an economic defense of advertising seems in the same category with an economic defense of education or of transportation. These are essentials of present-day civilization, without which further progress is inconceivable. In theory, advertising is very closely akin to education and transportation. It teaches people to know the goods and services available for their use; it distributes ideas regarding commodities

⁹ Adapted from an article in the *American Economic Review Supplement*, March, 1925, pages 14-15, 17-22.

as a preliminary and an accompaniment to the physical distribution of the commodities themselves.

But it is not advertising in theory that is generally attacked; it is the institutions and methods that exist today. In defending these, I assume that I am not expected to indorse all advertisers or their motives. Some use advertising harmfully; still more use it wastefully. Probably the majority are actuated by selfish desire for profit. Some do not consider the public welfare at all. But if their advertising is really a public benefit, their motives need not disturb us any more than the motives of a wealthy man who donates a building or an endowment fund to a university.

Many people have eagerly seized upon the idea that advertising is economically justified because consumption is just as necessary as production. Stimulation of consumption, however, is a by-product of advertising. In some industries—the California Raisin Growers, for example—increased consumption has resulted in great benefits by making demand balance supply. Advertising was an important instrumentality without which this purpose could not have been attained so easily and cheaply. Manufacturers, likewise, have used advertising when their plans necessitated a readjustment or control of the demand for their product. Not always does this mean an increase of demand; during the war a decrease of demand was desired, and advertising was employed both privately and by the government to help achieve the object. In spite of this, I deny that the primary economic function of advertising is to stimulate or even control consumption.

Please do not think I am trying to minimize the effect information has upon demand. Cut out of our newspapers all the advertising for a week, and sales at all the stores drop perceptibly. Curtain their display windows, and further loss is felt. Deprive the public of all kinds of information about things to buy, and trade stagnates. If sellers could not advertise to discover demand, consumers would have to advertise to discover supply.

Although the effects of advertising in bringing demand and supply together and in stimulating and controlling demand are to be regarded as economic by-products, they are not to be despised. There are many accompanying by-products which I have time only to mention.

First is the stimulation of production, and, more important, its stabilization.

Second is its stimulation of individual ambition and efficiency through raising living standards. This, I may suggest, is a by-product of all kinds of education, including college education.

Third is its effects upon production economies through fostering large-scale concentrated industrial enterprises. These could hardly be maintained for commodities of small unit consumption if it were not for nationwide distribution, aided by national advertising.

Fourth is its effects upon marketing economies by substituting the

machine for the man in the necessary processes of selling. The saving in personal word-of-mouth salesmanship by the manufacturer's agents and by jobbers and dealers is often sufficient to offset the entire cost of the advertising.

Fifth is the saving of the consumer's own time and effort in buying. The standardization of merchandise under the manufacturer's trade-marks is almost inseparably connected with advertising, for the brand means nothing until its meaning is known. The simplification of the buying process has saved us more than we shall ever realize unless we are somehow compelled to return to the old days of the open cracker barrel and higgling over prices and quantities.

A sixth by-product is in democratizing the education afforded by magazines, newspapers, and other periodicals, by means of a subsidy. Whether this is an economically sound method or not is open to argument; but it is in harmony with our method of financing university education so that the beneficiaries of instruction do not bear the full burden of the cost.

This is an impressive list of services, and others of almost equal importance might be mentioned. Nevertheless, they are economic by-products of advertising, and not its chief function. Its chief function is to educate. No other term is broad enough. Advertising not only transmits information that is essential to processes of exchange and does it more cheaply than word-of-mouth; it transmits more information, transmits it over a wider range, and does it with greater benefits.

This view of the economic value of advertising rests upon the premise that information about goods and services is in itself an economic utility. Such a conception has not received general attention among economists. However, one recent authority in his text on *Economics of Marketing and Advertising* has specifically pointed out that advertising may add value to goods by adding to their utility. Some others who are inclined to disparage advertising have granted it at least some possibilities of service in this respect.

How much has actually been accomplished may be seen by a study of history. The orange, for example, is much the same as in Adam Smith's day, but its utility is far greater. And its present importance in the lives of people has been due not only to better methods of production, standardization, storage and transportation, but to more complete information regarding its properties and uses. Sunkist advertising has done as much for the public as refrigerator cars. It is not long ago that a new invention like the typewriter, or the telephone, or a new book, had to wait the recognition of some government or the patronage of some powerful citizen before it could benefit its creator or the public. Improved products of familiar kinds, like the proverbial "better mousetrap," had to wait for the consumer to seek them out and then tell his friends about them. Today an inventor or an improver of a product recognizes that his work is only partly done when he has manufactured it, transported it, stored it, and put it in the hands of dealers. It is

literally useless until the public knows of its existence and its merits. Advertising that transmits this knowledge adds an actual utility to the goods.

Even the most uncompromising foes of advertising admit the economic service of advertising that introduces a new and meritorious article to the public. They may admit also the services of advertising that teaches new uses for old articles. Their objections are most commonly directed against competitive advertising, prestige advertising, reminder advertising, and the total volume of all kinds of advertising used, of which they say only a small part is truly educational.

One reason why it appears that only a small percentage of advertising is educational is that our view of it is individual. Perhaps only a few pages in a typical issue of a magazine tell you or me anything that we did not know before and wanted to know. But if we look at advertising from the point of view of its diversified audience, we shall find that a large portion of advertising is highly educational. In a typical recent issue of the *Ladies' Home Journal*, which was analyzed by a group of graduate students in marketing, it was found that over 40 per cent of the advertisements contained information of such service to women that it might have been placed in the editorial columns. It told her how to prepare better meals, how to arrange her kitchen, and how to protect the health of herself and family. In many instances she could make use of the information without buying the advertiser's product. When she is educated to a better knowledge of health and diet, or a keener appreciation of decorative art in the home, she has benefited immediately. Later the advertiser may profit also, if and when she buys his article.

In this issue, 40 per cent more of the advertisements were classed as competitive, but they gave information that enabled the housewife to choose more wisely, with a clearer knowledge of the distinctive merits of specific brands.

The remaining 20 per cent were classed as deficient in educational value, but in some instances the classification did them an injustice. We have been accustomed to think of education as an intellectual process and hence do not see educational value in messages addressed to the senses and emotions. We should remember, however, that advertising must be adapted to those who are to receive it. The advertising man knows that people will not listen to his messages unless they are entertaining as well as instructive. The advertisements in which pictures and art work are dominant may be highly educational if they tell a woman what she wants to know about a product.

The proportion of strictly competitive advertising, done only because the other fellow does it, is smaller than is commonly supposed. Competitive advertising educated new users in many fields. In markets where this is impossible—automobile tires, for example—competitive advertising has fostered the improvement of the product. More important than

this is the protection of the public by insuring that when an improved article becomes available they shall have opportunity to learn of it.

It must be granted that competitive advertising has wastes, as does all competition. But the very nature of competition indicates that the wastes of advertising cannot be so great as those of any other method of competing, or that other methods would displace advertising. Considered at its worst, competitive advertising is one of the fairest forms of competition, for it is entirely in the open.

To discuss prestige advertising that builds our faith in men and names would lead us too far into the field of psychology. It is true that a well-advertised branded article may sell at a higher price than an unknown article of the same intrinsic qualities. The consumer may pay \$3 more for an advertised hat, for example, than for an unknown hat which a hat expert declares is equally good. But the average consumer is not a hat expert. Part of the \$3 represents insurance against risk; part represents added satisfaction in his purchase and added pride in himself. Advertising sometimes increases the psychical value of commodities, and in so doing increases their exchange value. In so far as prestige advertising has prolonged and intensified the consumer's satisfaction, it has contributed something for which he ought to pay.

The volume of advertising today is indeed enormous. Its money cost is appalling, specially to those who look upon it as a tax upon the public purse. But the fact is that the greater part of this expense could not be saved. If we did not pay this amount out for advertising we should pay out all or most of it for other items of production and marketing expense. Part would go for higher costs of production due to smaller-scale enterprises. Part would go for added costs of personal salesmanship, by manufacturers, jobbers, and dealers. Part would go for increased time and effort by buyers. Part would go for greater losses through unsatisfactory goods and substitutes by unscrupulous dealers. Very likely these and other added costs would more than compensate for the cost of advertising. If they would not, then we must consider the remainder as the consumer's payment for education—education that benefits the consumer, education that he could not obtain so cheaply in any other way and could not obtain so completely at all.

The Campbell Soup Company has been able to show that their advertising appropriation—one of the largest in the country—has been more than offset by the economies it has effected, so that the consumer gets a better product at a lower price. Many other manufacturers could tell a similar story. Some who cannot present such convincing figures of economies are no less confident that the benefits to the consumer of their products are so great that he would not begrudge the price he had to pay to be educated to use them. I hope that sometime those manufacturers may come out boldly and say, "Of the dollar you paid for your safety razor, 5 per cent represents the cost of educating you. You were entitled to know about the article, and advertising was the cheapest,

surest, and most economical way of informing you." Possibly they could go even further and say, "We have also helped to give you new and higher standards of health, cleanliness, and personal efficiency, and you have paid us for that service."

I believe the time will come when people will generally understand this condition. This will be when they recognize that the giving of information about goods and services is a service that somehow must be performed and must be paid for. If there is a better way of performing it than advertising, it has yet to be found.

One of the sad things in the history of advertising is that in its early days it was used by the inferior and spurious, while those who had more meritorious goods and services to be marketed were slowest to perceive the necessity of broadcasting information about them. Advertising is too important as a constructive force to be left to the quacks and second-raters. Those who have something to offer the public, which the public ought to know about, are not doing their duty to themselves or to the public if they fail to make use of the most economical means of transmitting the information to a wide audience.

In the preceding article it was stated that "in theory, advertising is very closely akin to education and transportation." Accepting the view that advertising is a form of education, the writer of the following statement raises certain questions about the qualifications of the teachers. There is also a brief note on some of the perplexities of the students as seen by one for whom life is, after all, a series of merry jests.

THE RESPONSIBILITY OF EDUCATORS¹⁰

by Morris A. Copeland

ADVERTISING aims to educate consumers' tastes. Effective advertising is carried on in anticipation of a demand for itself which it produces. And in the nature of the case consumers cannot help but approve the choices which advertising induces them to make.

Advertising aims to increase demand for an article, and so its consumption. Hence it may pay the manufacturer to use it in educating the consumer in wasteful and extravagant consumption of his product. Thus the profit incentive encourages attempts to produce the obsolescence of products so that they will be discarded before they are physically worn out and to develop the mores of competitive consumption.

Although advertising is an educational institution, the advertiser's responsibility is not that of an educator; and there are important educa-

¹⁰ Adapted from an article printed in the *American Economic Review Supplement*, March, 1925, pages 40-41.

tional effects of advertising as a whole of which the advertising profession is largely unaware. Thus the net effect of advertising various kinds of consumers' goods has probably been to divert consumers' income into channels of current expense rather than investment, and so to discourage saving. And if Professor Hotchkiss' suggestion is correct, that advertising develops in the working classes an interest in raising their standard of living, it clearly acts to make workers discontented with the present distribution of income and to promote industrial unrest. John Stuart Mill long ago pointed out that education is not one of those things which may properly be left to depend for development on its success as a pecuniary enterprise, and that "the supply called forth by the demand of the market will be anything but what is really required." I wonder whether we can afford to leave the education of consumers in home economics and standards of living primarily to men who not only are not paid to consider but probably are not aware of the broader social effects of their educational activities.

WHAT SHALL I DO? ¹¹

by Don Herold

I HAVE been eating three or four times as much bread since somebody started to advertise "Eat More Bread."—Bread and raisins. (Somebody else is advising me to eat lots of raisins. It increases the zinc or copper in your system. No, I am getting the raisin campaign mixed up with the Zinc Association Advertising. I believe it is lead that you get from raisins.)

But I have come to the conclusion that I am going to have a funny diet and a funny existence if I take all the advice that I am getting in the advertisements. "Ride on Trains," says one great series of advertisements. The railroads must be behind that, although, for all I can tell, it may be the plush manufacturers. They may have it figured out that if more people ride on trains, these people will wear out more plush in seats in railroad coaches, and the railroads will have to buy more plush.

But I get a conflicting urge from that other great series of advertisements which tells me to "Stay at Home More," and which pictures so passionately the comforts of home. I had my grip all packed the other day to ride on a train (just anywhere, so it was on a train), when I happened to read one of those stay-at-home ads, and I immediately unpacked my things and put on my house slippers and—I have it! It is the House-Slipper Manufacturers' Association that is running those stay-at-home ads!

If I eat more pie as the National Guild of Pie Craftsmen advocates,

¹¹ Adapted from a sketch in *Life*. Reprinted in *So Human*, E. P. Dutton and Co., 1924.

and more spaghetti as the North American Alliance of Spaghetti Weavers desires, and more beans as the Bean Growers insist, and more ice cream as the Ice Cream Freezer Cog Wheel Founders' Association admonishes, and more bananas as the Canadian Banana Growers recommend, and more asparagus as the International Asparagus Growers counsel, I think I'll be in a position to take the advice of that latest campaign on which I have seen advance proofs: "Use More Coffins."

The source of some of this indirect and abstract urging is so mythical and far-fetched as to be almost irritating. I thought it was candy manufacturers who were telling me to "Eat More Caramels," and discovered a tiny signature at the bottom which indicated a state dental association as the author of the series.

And the thing that has come nearest to bewildering me beyond recovery has been to read, during the same day, an advertisement by the Trouser Manufacturers beseeching me to "Sit Down More," and another advertisement by the Shoe Sole Association of New England convincing me that I should "Stand Up More."

Closely allied to the problem of competitive advertising, but less provocative of controversy, is that of the "excess variety of products." Doubtful about the economic justification of producing 6,280 different varieties and sizes of grocers' paper bags, some investigators assert that we could conveniently abandon several thousand, thereby effecting a considerable saving. They also contend, and without serious dispute, that the manufacturer and the public would both be benefited by discontinuing the manufacture of some of the 715,200 varieties of grinding wheels which a recent survey showed to be produced in this country. Asserting the desirability of simplification, the U. S. Department of Commerce has recently been successful in aiding manufacturers to cut down on the number of sizes and varieties of many products. A few facts concerning simplified practice are recorded in the following article.

SIMPLIFIED PRACTICE AS A METHOD OF REDUCING WASTE¹²

by Ernest L. Priest

SIMPLIFIED practice is a method of eliminating superfluous variety. It is applied by the collective action of producers, distributors, and consumers, with the coöperation of the Division of Simplified Practice of the U. S. Department of Commerce, to eliminate needless variety in sizes,

¹² Adapted from *A Primer of Simplified Practice*, a bulletin issued by the U. S. Department of Commerce, 1926.

dimensions, and types of commonplace commodities. This method is based on the sensible avoidance of waste caused by excessive and uneconomic diversity. Simplified practice decreases costs and increases the utility and efficiency of production, distribution, and consumption. These ends are accomplished by voluntarily limiting varieties of stock items to those for which there is a constant demand.

For example, simplified recommendations in the case of common building brick called for but one size and eliminated 43 sizes which were previously made of this commodity. Simplified practice recommendations in the case of steel reinforcing bars resulted in the reduction of the number of cross-section areas from 40 to 11.

Experience has shown that scores of industries are totally unaware of the extent of variety in their own products. The woven wire fence group, for example, learned through its survey that it was making 552 sizes, types, and combinations of gauge of wire, length of roll, *et cetera*, and 2,072 sizes of packages, of which 69 and 136 items, respectively, were found adequate to fill any consumer demand. This occurred, too, when the sheet steel industry found that it was making 1,816 gauges and sizes of sheets, and that only 263 of these items reached a total production of 100 tons in the thirty-five companies over a period of six months.

Simplified practice has nothing to do with questions of individual taste or artistic preference. It in no way restricts improvements in method or the progress of invention. It does not attempt to suppress or submerge individuality. Its object is not the creation of a rigid régime of so-called standardization where there is no regard for beauty or art. Neither does it limit the opportunity of the individual to procure those things which satisfy cultural desires.

The fundamental purpose behind simplified practice is the national welfare. It leads to the stabilization of trade and industry and equilibrium of employment. The resulting economies of production and distribution enhance the purchasing powers of the consuming public, thus enabling them to enjoy a progressively higher standard of living.

That it is a simple and effective method of attacking waste is evidenced by (1) the steady increase in the number of industries which have adopted simplified schedules, (2) the consistent adherence to existing programs by the leading members of industries which have adopted simplified practice, and (3) by the actual savings reported as being directly traceable to its application.

Waste due to competitive sales efforts and business cycles may result in curtailing current production and thus affect the total of goods to be divided among the various groups in the community. Indirectly it may affect the future volume of production by reducing

the accumulation of machines and buildings that might be available years hence. There are certain types of waste, however, which may have an even more direct and certain bearing on future production, as, for example, that involved in the reckless exploitation of coal resources. It is frequently asserted that in the rush to get bituminous coal out of the ground as cheaply as possible almost as much coal as is removed is rendered inaccessible, except at enormous expense, for those who may need such coal at some future time. At present, the known soft-coal resources of the United States are so large that pleas are made in vain for a general public interest in reducing the waste in present methods of coal extraction. To future generations, however, this waste may become a tragedy because as coal resources dwindle they may be forced to rework, at great expense and labor, mines only partially and carelessly exploited by their forebears.

The exploitation of the petroleum resources of this country affords another example of waste which is likely to have serious effects upon the future volume of production. In a report recently submitted to a federal board appointed to investigate the waste of oil resources and to recommend steps to reduce it, it is stated that in getting oil out of the ground "the proportion of oil recovered in actual competitive practice is in the judgment of competent engineers as low as 20 per cent in many cases."¹³ Many of the reasons for this were suggested in the discussion of oil prices in Chapter XIII. The report states that the oil left in the ground through reckless methods of extraction "is not lost in the sense that it is destroyed or dissipated, but so far as its recovery for economic uses is concerned, it is lost, since there is no method by which it can be recovered at reasonable cost."

The manner in which the forest resources of the country have been and are being utilized also raises serious doubts about the future supply of a large variety of vitally needed products. It also presents problems not confined to wood products. Engineers, after studying the flood of the Mississippi river in 1927, have reported that one of the contributing causes of this disaster was stripping forests which once served to hold the flood waters in check on the upper reaches of the river. Thus, not only may the sins of lumbermen of one generation be visited on future generations, but the sins of lumbermen in Minnesota may be visited on people a thousand miles away in New Orleans.

In the following group of statements there is a discussion of some of the problems raised by our dwindling forest resources and some of the steps which might be taken to deal with them.

¹³ A report of the Committee of Nine submitted to the Federal Oil Conservation Board, January 20, 1928.

THE WASTE OF TIMBER RESOURCES¹⁴*by Rolf Thelen**(Engineer in Forest Products, U. S. Forest Products Laboratory)*

THE present area of forest land in the United States is approximately 469,500,000 acres. This is about 57 per cent of the original forest area, but it has been largely cut and burned over, so that it now bears less than one-third of the country's original forest stand. The total remaining stand of timber is estimated as follows:

	<i>Billion cu. ft.</i>
Saw timber	485
Cordwood	261
Total	746

The present rate of cutting from our forests is about as follows:

	<i>Billion cu. ft. per annum</i>
Saw timber	11.6
Cordwood	10.8
Total	22.4

In addition to this drain of 22.4 billion cubic feet, there is a waste in the forest itself, from fire, decay, insect attack, and windfall, of about 2.4 billion cubic feet. (As to fire, this figure does not include the wastage of reproduction, which cannot be measured in cubic feet.)

It is obvious that if the present rate of drain were to continue unrelied, and if there were no growth increment, the Nation's entire stand of timber would be wiped out in a comparatively few years—the saw timber in about thirty-seven and one-half years, and the cordwood in about twenty-two years.

The rate of drain is not likely to decrease; in fact, economic studies point to the conclusion that, although our per capita consumption of wood is declining, our wood requirements will increase from year to year with the increase in population.

The increment of wood through growth is 6 billion cubic feet a year. Thus we are using up our timber four times as fast as it grows, and the end of more than three centuries of abundance is now plainly in sight.

¹⁴ Adapted from *A Digest of the Problem of Wood Waste Prevention* submitted to the National Conference on Utilization of Forest Products, Washington, D. C., November 19 and 20, 1924.

More effective methods of manufacture and use of forest products hold out the best hope for immediate aid in the alleviation of the timber shortage. Improvements can be made immediately on the basis of knowledge already available. Present wastes and losses are enormous. Present average practice in manufacture and use of forest products is so far below present best practice that tremendous savings can be made at once.

If present best practice and knowledge were put into effect to the fullest extent economically feasible, it is estimated that a saving of approximately two-ninths of the present drain on the forests could be accomplished. This estimate is based entirely upon economies already proved to be feasible. Further economies of at least equal magnitude will almost certainly be developed through research, making possible a total saving of four-ninths of the annual drain and a corresponding extension of the existing timber supply. It thus appears that better utilization will help to bridge the gap between the exhaustion of virgin stumpage and the availability of new forests.

Two-thirds of the entire drain on the forest is lost during manufacture and use. The losses are of many kinds and types, ranging from material which is actually thrown away to that which is manufactured inefficiently or is allowed to give way prematurely in service. Where and how do the losses occur?

One of the largest single items of loss of forest products is decay. It occurs in standing timber, in logs stored in the woods and at the mill, in lumber and other products which are stored while awaiting use, and during use. The last-named loss, during use or "in service," is the greatest because of the tremendous amount of wood "in service" exposed to decay. The amount of lumber and timber and other wooden products in service is many times as great as the annual cut, and a loss which may be a small percentage of the amount of material in service becomes a startlingly large percentage when based upon the annual cut. In the case of railroad crossties, for instance, the annual production is approximately 110 million, whereas the actual number in service is about 1,150 million. There are about 20 million dwellings in the United States, containing at least 250 billion board feet of lumber and other sawed material; yet the annual cut of lumber for dwellings does not exceed 15 billion board feet. The same general situation exists in the case of fencing, mine timbers, poles, and other classes.

The total annual loss by decay during storage and in service is estimated to be the equivalent of over 4 billion cubic feet of standing timber—almost a fifth of the annual drain upon our forests.

In the logging of saw timber for lumber and other sawed products, almost 2.3 billion cubic feet of standing timber per annum is lost or wasted. This item comprises stumps and tops, trees shattered in felling, small and defective logs, trees of little-used species, material wasted through bucking, the losses resulting from carelessness or lack of judg-

ment in damage through sky-line logging. The loss is equivalent to about 28 per cent of the stand involved in the operation.

The total of all the wood losses is about 5.5 billion cubic feet per year, or about 24 per cent of the forest drain.

About 55 per cent of the volume of the log as it enters the sawmill emerges as useful product. The remaining 45 per cent is lost in bark, saw kerf, slabs, edgings and trimmings, and culls due to mis-manufacture. Losses in the barking, chipping, and grinding operations in making wood pulp and converting the pulp into paper are estimated at about 720,000 cords per year. A large percentage of the loss occurs in barking, particularly when knife barkers are used. The losses are sometimes as high as 33 per cent of the net volume.

Wastes and losses in remanufacture are those which occur in the production of finished articles from lumber and dimension material. Typical examples are furniture and chairs, boxes, vehicles and automobiles, woodenware. Cutting up the lumber and dressing it to the proper sizes and shapes are the principal operations in which the waste occurs. For instance, only 60 per cent to 75 per cent of the lumber remanufactured into furniture and chairs appears in the finished product, the remainder being lost or wasted. The total of all remanufacturing losses exceeds in amount the equivalent of one-half billion cubic feet of standing timber annually.

A total annual loss of at least 1 billion cubic feet of standing timber is caused by waste occurring in a wide variety of forms, each comparatively small in amount, among them the following:

1. Improper design of structures.
2. Unsuitable grading rules.
3. Failure to use short and odd lengths of lumber.
4. Destructive turpentine orcharding methods.
5. Staining of sap wood.
6. Wasteful processes in the manufacture of chemical pulp.

THE NECESSITY FOR FOREST THRIFT¹⁵

by Calvin Coolidge

TO BRIDGE this fatal gap between cut and growth we have never taken sufficient action. In fact, our wealth of old-growth timber has made us prone to ignore the gap and to leave our less fortunate descendants to struggle with it. But we cannot escape the penalties of our national neglect. They are already beginning to be felt. Since 1870, lumber prices have risen much more rapidly than the price of other commodities. Per capita annual consumption of sawed lumber, which in 1906 had

¹⁵ Adapted from an address delivered to the National Conference on Utilization of Forest Products, Washington, D. C., November 19, 1924.

reached 525 board feet, has dropped to 285 and in some of the eastern states to 160 board feet. We are paying a yearly freight bill of \$250,000,000 which could better be used for growing timber than for transporting it.

There is no easy road out of this unprofitable situation. The end of free timber is in sight. World competition for the world supply will leave no large dependable source of imports open to us. The use of substitutes hardly keeps pace with new uses for wood; there is no likelihood that we can become a woodless nation even if we wanted to. When the free timber is gone, we must grow our wood from the soil like any other crop.

Strange as it may seem, the American people, bred for many generations to forest life, drawing no small measure of their wealth from the forest, have not yet acquired the sense of timber as a crop. These immense stretches of cut-over land, mostly too rough or too sterile for tilling, have not awakened us to their vast potential worth as growers of wood. Fully one-fourth of our land area ought to be kept in forest—not poor, dwindling thickets of scrub, but forests of trees fit for bridges and houses and ships. Handled by the best timber-cropping methods, our present forest lands could be made to grow even more timber each year than we now use. But much of our cut-over land, lying idle or half productive, is now an immeasurable loss. It pays little or no taxes; it keeps few hands busy; it turns few wheels; it builds no roads. Idle forest land has scrapped schools, factories, railroads and towns; it has dotted the land with abandoned farms; it has created a migratory population. Our forest problem is a land problem of the first magnitude.

It is likewise an industrial problem of great importance. These great industries that depend on the forest for their raw material—industries that, taken together, rank about third in value of output among our chief industrial groups—must be preserved. They employ a very large number of wage earners; they represent an immense investment of capital; around them are built whole cities; they feed the railroads with a vast flow of traffic. In the long run, they depend for their existence on making our forest soils grow timber and on using that timber without waste. So vast an enterprise as the forest-using industries must not be allowed to decline for lack of raw material. We have abundant soil to produce it. We have the energy and intelligence to learn to use our forests without waste.

We hold the resources of our country as a trust. They ought to be used for the benefit of the present generation, but they ought neither to be wasted nor destroyed. The generations to come have also a vested interest in them. They ought to be administered for the benefit of the public. No monopoly should be permitted which would result in profiteering; nor, on the other hand, should they be indiscriminately bestowed upon those who will unwisely permit them to be dissipated. These great national resources must be administered for the general welfare of all

the people, both for the present and for the future. There must be both use and restoration.

POSSIBLE METHODS OF REDUCING TIMBER WASTE ¹⁶

by William B. Greeley

(Former Chief of the U. S. Forest Service)

Who is going to reduce the waste of our timber supplies, and how are we going to get about it? My own view of forest conservation is that of an evolution by industrial operations and in the use of land, brought about primarily by economic forces. The pressure of competition and the commercial incentives which it creates will, as timber becomes more scarce and more valuable, gradually remove many of these losses. It is already doing so. The huge waste burner, so typical of the American sawmill, is beginning to disappear from our industrial landscape.

But the nature of the problem is such that individual competition works under a tremendous handicap and will gain ground in waste prevention but slowly. Our whole timber manufacturing and wood-using business is so largely the creature of customary specifications, trade practices, the inherited traditions of employees, the structure of freight rates, and similar set conditions, that the opportunity for individual competitive effort is greatly restricted. We pride ourselves, and with reason, on the creative genius of American industry. The problem of saving timber waste in the big way that is demanded cannot be solved without a large dose of that same genius.

A joint effort should be directed, utilizing all of the agencies available: First, to extend research in the utilization of timber on a much larger scale, in order that we may continue to ferret out the better methods and more economical processes that undoubtedly await the quest of the trained investigator. In the second place, we should so organize that every promising research project carried through the laboratory stage can promptly be given a commercial test under operating conditions. In the third place, we should provide for educational work in a large way to "put across" among the manufacturers, refabricators, distributors, and consumers the results that have been proved to have practical merit. And, finally, we should attack the great problem of so correlating the operations of different industries and of so correlating industrial developments with consumption that the whole enterprise can be carried through from start to finish.

In the last analysis, of course, the commercial incentive of more profitable business will be the driving power behind this whole movement. But much can and must be done through organized effort to speed up the

¹⁶ Adapted from an address to the National Conference on Utilization of Forest Products, Washington, D. C., November 19, 1924.

momentum of that power. Just as in the growing of timber the country is now seeking through a drive upon forest fires and forest taxation to give freer play to the commercial interest in reforestation, so in this field should coördinated effort seek to give freer play to the business incentive for the better utilization of our timber supply.

A sharp difference exists between this problem and the more usual economic problems that can be left to the automatic adjustments of supply and demand. There is no practicable solution of our timber situation outside of what we do right here in America. We should not delude ourselves with the notion that either importations from abroad or substitute materials at home are going to fill the bill without very serious losses to American industries and American people. The public concern in this situation is manifest. Its concern to forest industry, although from a different angle, is, nevertheless, equally great. Neither can we afford to ignore the fact that only joint effort will meet the situation.

An expansion in the efforts of public agencies will have but small effect except as it supplements what the forest industries and forest consumers of the country themselves undertake. Forest products' research is like a voice crying in the wilderness unless some form of industrial organization is ready to take what it offers, try it out under commercial conditions, and then disseminate it through the trade. Personally, I would draw no hard and fast lines on where government activities should stop in putting the results of research into practice through various forms of trade demonstration and education. I would go just as far in this direction as our resources will permit. But I am reminded of the retort made by a very keen member of Congress, upon a request for appropriations for this purpose, who asked why it was necessary for the federal government to legislate brains into the forest industries of the country.

Whatever public agencies may be able to do in this direction, I believe that getting betterments into practice through commercial demonstration and trade education must be assumed largely by the industries themselves. And this today is the crux of the problem. If what we already know could forthwith be universally applied, a tremendous gain in the conservation of our timber resources would be immediately affected. And the more we find out, the broader the horizon of research becomes, equally more important will it be that effective agencies exist for the prompt application of investigation results.

QUESTIONS

1. Of the three sample advertisements given below, decide which (if any) purvey real information outside the mere brand name, and which might be eliminated or cut down if an impartial bureau took over the job of "advertising."

SAMPLES FROM THE ART OF ADVERTISING

ARISTOCRATS of the CEMETERY

As in life some characters shine more brilliantly and stand as peers among their equals, so in the cemetery

WINNSBORO BLUE GRANITE

befittingly portrays life characteristics and permanently perpetuates the memory correspondingly. Matchless in beauty, permanence, flawlessness, density, clearness of inscription.

* * *

MANY MARRIAGES

twixt Ed and Co-ed result from that alluring institution, the sorority "At Home" Lunch.

The ideal food is something light, yet satisfying, appetizing without being elaborate—in short easy to prepare and easy to serve.

SHREDDED

WHEAT

fills the bill perfectly.

* * *

COUNTED AS THEY PASS

by the

PRODUCTIMETER

The Productimeter Model L5 Conveyor Counter provides a quick, easy, and accurate means of getting the count of boxes, pieces, or packages as they pass along the conveyor. Assures a mechanically accurate count and saves a man's time and wages. Unit consists of a standard 5B1 Productimeter equipped with a special mounting bracket and counting arm, ready and complete for attachment to any conveyor. Counts to 99,999 and is easily reset to zero by a turn of the wing nut.

* * *

2. Which method of easing conflicting claims seems to you the more promising,—decreasing the population, as discussed in the last chapter, or increasing production as discussed in this chapter?
3. Competition is supposed to provide a spur to efficiency. Can competition be relied upon to prevent the possible wastes involved in child labor? in sickness? in excess variety of products?
4. Can you sift the various arguments about advertising and come to any conclusion whether or not there are certain wastes peculiar to competitive advertising, which are not found in, say, the competitive manufacture of shoes or books?

5. It is claimed that advertising brings about large-scale production and low unit costs. Do you think that advertising promotes or discourages large-scale production? low unit costs? What would be the effect on unit costs of adopting Mr. Chase's proposal for accurate and adequate information to replace present claims to superiority?
6. Suppose that advertising, as a machine method of selling, does lower unit costs; does it follow necessarily that it lowers prices to the consumer?
7. It is during depression that most firms could make the greatest reductions in unit costs by increasing production. At the same time, buying inertia is the greatest. Would you expect A to tempt B with more pictures of soap (and pretty girls) during this period or during prosperity? How do you explain the fact that in fifty national magazines the advertising linage during the period 1918-1923 was as follows:

1918	14,565,000
1919	20,222,000
1920	25,511,000
1921	15,820,000
1922	16,220,000
1923	19,228,000

To check up your conclusions, look up in the *Survey of Current Business* data on advertising linage during the recession of late 1927.

8. Is advertising so closely bound up with our whole competitive scheme of things that it cannot be easily reduced without far-reaching effects on other aspects of the competitive system? If this is true, does it follow that there is no possibility of reducing the alleged wastes of advertising? Is the competitive system itself gradually changing into something else?
9. It is stated that if a program of simplification is carried beyond a certain point, the result will be drab uniformity which denies sufficient freedom of choice to the consumer. As a consumer, could you estimate where that point would be with reference to the number of makes of automobiles? the number of brands of cigarettes?
10. What do you understand to be meant by "functionalism" or a "functional society"? (See selection called "Channels of Waste.") Is our present society "functional" in this sense? Is it partly so? Is it growing to be so? What does all this have to do with "waste"?
11. Outline a program which you think would be effective in securing a maximum utilization of forest resources. Compare your program with the statement of the "competitive ideal" in Chapter VIII. Is there a clash? If so, why? Explain fully.

REMODELING THE ECONOMIC SYSTEM

THIS chapter is designed to give the reader at least a casual acquaintance with some of the schemes of radical social transformation being advanced at present, and to suggest some possible attitudes toward sweeping changes in our economic system. The chapter includes material relating to:

- (1) The protest against the present economic system.
- (2) Socialism and communism as programs of comprehensive change; the Russian experiment.
- (3) Criticisms of the broad features of these programs.
- (4) Possible attitudes toward the present economic order.
 - (a) The attitude of the "liberal" or "progressive" reformer.
 - (b) The attitude of the social scientist.
 - (c) Radical, conservative, and "realistic" attitudes, as revealed by a conversation.

SUCH programs to ease the struggle for more income as those discussed in the preceding chapters meet a skeptical response in some quarters. "Plans to control population growth and improve productive methods," it is sometimes asserted, "may reflect good intentions, but they also reflect a woeful ignorance of the fundamental cause of our economic ills. This cause is the existence of the capitalistic system, and the only way to make any permanent headway toward easing the pressure of our economic problems is to abolish that vicious system and set up another designed to promote the welfare of all the people instead of that of a favored few."

In this chapter we shall consider some of the views of those who would dismantle our present economic system and substitute another kind which seems to them more compatible with human welfare. We shall also examine a few of the possible attitudes toward plans to solve our economic problems by a thorough overhauling of the present system.

That our present system falls short of perfection is something no thoughtful person would deny. The recognition that it is imperfect does not, however, necessarily lead to the conclusion that something drastic should be done to remedy the defects. There are those who contend that the present system is the best conceivable in view of what they regard as "human nature." They think that such defects as may seem to develop from time to time are transitory and subject to

elimination by the operations of the "law of supply and demand." There are others who regard the weaknesses of the present system as serious but not serious enough to warrant taking the chances involved in reforms designed to eliminate them. And there are still others who, agreed upon the necessity of removing the imperfections, are doubtful whether this can best be accomplished by modifications of the existing economic system or whether more promise is offered by the adoption of another kind of economic organization. It is this question, rather than that of the inherent righteousness or wickedness of the present system, which is the important consideration in this chapter. The first article summarizes some of the complaints made against the present system. The indictment is then continued in the form of a parable.

THE VOICE OF PROTEST¹

by Harry W. Laidler

INCREASING millions of human beings in the world today are urging a fundamental change in social relations on the ground that only through such a change can humanity hope to attain a truly free and fine industrial civilization. Most of those who urge such a change readily concede that the present order of capitalism is a necessary historic stage in the evolution of society. They hold that, during its brief career, capitalism "has created more massive and more colossal productive forces than have all preceding generations together." They contend, however, that the present order is rapidly outgrowing its usefulness, and that it has given rise to fundamental social and economic evils which may be ameliorated, but which cannot be eradicated so long as capitalism endures.

These evils include vast economic wastes resulting from the production of life's necessities under competitive conditions and for individual profit; industrial crises; irregularity of employment; poverty and the fear of poverty; child labor; sickness and disease resulting from improper working conditions, insanitary housing conditions and lack of adequate food; industrial accidents due to improper safeguards around the worker; inequality of wealth, based on differences in property ownership rather than in ability or in industry; unethical business practices; social and industrial tyranny; the development, on the one hand, of the spirit of arrogance and snobbery among the members of the "House of Have," and, on the other hand, of the spirit of subservience among the members of the "House of Have-Not"; class warfare, due to the present private ownership of industry and the quest of industrial groups for special economic privileges; international warfare, resulting largely from the competition among business groups in various lands for special privileges in undeveloped countries; and finally, the suppression of person-

¹ Adapted from *Roads to Freedom*, League for Industrial Democracy, 1925.

ality and the denial of opportunity among the masses to develop to the full their intellectual, æsthetic, and ethical natures.

CAPITALIST DEVELOPMENT IN THE POULTRY-YARD ²

(A Parable)

ONCE upon a time there was a chicken yard which afforded ample room for all the chickens that lived in it and afforded a great plenty of worms, so that none went hungry who cared to scratch for a living. And the yard belonged to all the chickens and each had a right to scratch where he pleased and all the worms that he found belonged to him. So they were all as happy and fat as all good chickens ought to be.

But one day a wise man became disgusted with a work on *Political Economy*, for the book contained a lot of nonsense about the Rights of Capital, Rent, Profits, and Interest. So the wise man, tearing the book to pieces, threw it out of the window.

The wind caught the chapter that had made the wise man so furious and carried it into the chicken yard. It fell in front of an able-bodied rooster, who looked it over, thinking he might find on an advertising page some new kind of food. He soon became absorbed and said to himself: "What a fool I have been to scratch all my life for a living when this book tells me how I can get a living for nothing, and without work; for why should I work when I can make the other chickens work for me?"

So he said to the other chickens:

"Here is a large fat worm, and as I am not hungry you can have this worm if you will give me one little square yard of this big chicken yard and let me have this for my own."

"Why, of course you can have it, you idiot," said the others in a roar of laughter at his folly. "What is one little square yard of our vast domain? Give us your worm and take your square yard wherever you choose."

"Well, then, I will take the spring in the corner of the yard."

"Well, you must be crazy. There are no worms in the spring."

But the rooster held his peace until one of the chickens became thirsty and started for the spring to get a drink. Then he cried: "Here, you, keep away from the spring. It is mine."

Then they all began to cackle and said they would take water anyway. But the rooster read them out of his *Political Economy* and showed them they would encroach upon his Vested Rights if they drank water without his permission. They argued until they were all so thirsty that they could not stand it any longer. Then the rooster said: "Come now, I'll tell you what I'll do. I'll sell you a drink all round for one more square yard. Of course you will not miss it out of your vast domain."

They were dying with thirst, so they were compelled to accept his

² Adapted from a pamphlet published by "The Appeal to Reason," Girard, Kansas. (Date not known.)

offer. All had a good drink, and the rooster "owned" another square yard of their land. It was not so many days before he "owned" the whole chicken yard. Then he said: "Where are you going to live now?"

"Why, in the yard," they said.

"But this is 'my' own yard. I bought it as the 'Reward of Abstinence.'"

"Stuff, you only abstained from eating one single worm."

"Ah, yes. But then I 'invested the proceeds,' and by exercise of 'business acumen,' I acquired possession of the whole yard and now you cannot live on my land unless you pay me rent."

"What's rent?" asked a cockerel.

"Why, all you have to do is to give me one-half the worms you find and then you can live in my yard."

"What nonsense! We are still going to have all the worms we find, just as we always have done."

But the old rooster showed them his *Political Economy*, how the Interests of Labor and Capital are Identical, because if they did not pay him rent he would close the works down and declare a shutdown and not allow them to scratch at all, so they would all starve to death. From this time on they found they had to work just twice as hard for a living as they did before, as they had to give half their worms to the rooster for rent, but the rooster did not have to work or scratch at all. Soon his pile of worms began to grow very fast and no matter how many he ate he could not keep it down. He became very fat and lazy and sneered at the "working classes." So he began looking around for a way to dispose of the surplus.

"I am going to have a large retinue to help consume the surplus," he decided.

So he told one of them to spread out his wings in front of him so as to shade him from the hot sunshine, and another to fan him with his wing, as he was now too lazy to do it for himself. Then he had a nice little hen for a manicure to trim his claws, and a massage chicken to rub him down in an effort to keep down the fat. And he told his retinue they could live off his pile of worms. It was not long before the rooster, his wife, and their one little chicken were complaining of the incompetency of domestic help.

But all this time the chickens had been raising broods of their own, and the yard now began to be well filled, so that it became harder to get worms for all, especially when they had to give one-half to the old rooster. Then the chickens made an outcry and said: "When you first made your bargain with us there were only one-tenth as many chickens in the yard as there are now, and so you are getting ten times as many worms as we bargained for, as we still have to give you one-half of all the worms we dig."

"Why, of course," said the rooster, "that is natural increase."

But the chickens were now in a very bad way, and many of them actually starved to death. So the rooster said: "You must not do that. It would be the height of ingratitude if you should all starve to death, for if you

all die what would become of me? Why, I might actually have to scratch for my own living on my vast domain. Without its teeming millions it would be worthless."

"Well, then, we do not see," said they, "if the teeming millions give all the value to the vast domain, why the vast domain does not belong to the teeming millions."

"Well, I certainly despair of ever teaching you anything about POLITICAL ECONOMY," said the rooster. "Now," he continued, "when you get to the verge of starvation come to me and I will generously lend you some of my worms and you shall pay me interest."

"What's interest?" said they.

"Why, just before you starve come to me and I will lend you enough worms to keep you alive, and for every ten you borrow you shall pay me back eleven."

One day, after reading his *Political Economy*, he beamed all over his face and said: "The trouble is over-production."

"Over-production," cried the chickens in astonishment. "We call it under-consumption. The idea of calling it over-production when we are starving to death!"

He got out his *Political Economy* to convince them that they could not get enough to eat because there were too many worms and that the only way in which they could get any worms to eat was to dispose of the surplus, so that there would not be so many worms, and they could then go to work and dig more worms. He explained that what they needed was an outlet for the surplus, and that if they made their land the workshop of the world and sold more than they bought, and rolled up a large balance of trade, they would all get rich. So now he advocated the open door.

But the pile of worms still grew. Then the old rooster said: "See how prosperous we are. See what an enormous foreign trade we have built up."

But the chickens said: "It may be general prosperity but it is also private starvation."

The chickens were getting so restless that the old rooster said. "We will found charities, and I will give ten worms every day if you will give the same, and we will get up charitable organization societies."

"Oh, yes," said the ungrateful chickens, "you take a thousand worms from us every day and give us ten, and think you are very holy and righteous."

"Now see here," said the rooster, "you have been listening to the agitators again. Let me tell you that the interests of the laboring chickens will not be looked after by the labor agitators, but by the Christian rooster, to whom God, in His infinite wisdom, has confided the property of this country."

One day he came home from a foreign tour all in a flutter. For he said that a Duck, or a Duke, as he called it, had asked him for the hand of his daughter in marriage. The rooster further said that they were

all going to live abroad, with his daughter and son-in-law, the Duck, and that he had bought a place, Skylow Castle, and that the chickens must all be very proud that their country chick was going to be a Duchess.

"Glory Hallelujah," shouted the chickens, "when he is gone we can have the yard to ourselves again."

But the rooster had left an agent to look after his interests, and the chickens found that the agent was harder than his master because the rooster had a big lot of rotten debts of the Duke to pay off.

It was not long after that the news arrived that the rooster had so swelled up that he had burst and was dead.

"Hail Columbia," cackled the chickens, "now we shall surely have the yard to ourselves, just as we did before."

"Not much," said the agent, "he has left a will and has given the whole yard to the Duck and Duckess."

"But what right," said the foolish chickens, "has the dead rooster to give away our land? He is dead and no longer has any interest in it. It is bad enough to pay rent and interest and profits to a live rooster without being compelled to pay it to a dead one. The Duck and Duckess have not practiced abstinence nor do they even earn the wages of superintendence, and they are not entitled to seven-eighths of the produce of our labor. They do not even live here. Why should we be compelled to give them seven-eighths of our time when we are starving?"

"Now, I want to tell you," said the agent, "that we are living under the capitalistic system, and a man has a right to do with his own property as he pleases. When we first started the capitalistic system, in this yard, we were the only chickens that could boast of it, but now all the other chickens have this same capitalist system, and they are one and all producing a bigger pile of worms than they consume. For that reason we can no longer sell from our pile of worms, and unless you use it to support the Duck and Duckess in idleness and luxury, we shall be compelled to stop all digging of worms and shut down the works."

"Well, if we cannot dig worms, how are we to live?" cried the chickens.

"That is just it. You will all starve, so you might as well submit."

"Well, now, see here, we are not going to starve, nor are we going to submit. We are going to take this chicken yard and stop paying rent, interest, and profit."

"What?" shouted the agent, horrified. "Would you violate the sacred rights of capital? Would you trample on vested rights? Would you break the laws of rent and interest and profits? Would you treat with disrespect the laws of POLITICAL ECONOMY? Would you confiscate other chickens' property? For shame; you are no better than Socialists."

"All right," said they. "If that be Socialism, then we will all be Socialists. This can be borne no longer, and we are going to eat all the worms we find."

And when the agent saw that they were determined, he decamped and was never seen in the yard again. And the whole yard once more belongs to all the chickens, and they have a right to scratch where they please,

and all the worms that each finds belongs to the finder and all have enough who are willing to scratch for a living.

"Well; we did not think it was so easy," said the chickens.

The movement for a drastic remodeling of our economic system is usually associated with the term "socialism." There are probably very few words in the English language which have a more vague and shifting meaning. People with widely divergent ideas, advancing many different programs, have at times identified themselves as "socialists." During recent years in the United States the terms "socialist" and "socialism" have been so frequently used as blanket epithets or terms of abuse that many people who were once pleased to regard themselves as "socialists" have abandoned the label because they do not like the popular associations the word brings to mind.

In general, it may be said that the socialists advocate public ownership and control of the means of production. But this does not make allowance for the people who demand that only the key industries be taken out of private hands, nor for people like guild socialists and syndicalists, who advocate some other scheme of control than either the state or private enterprise. Both of these latter groups may be said to be on the fringes of socialist thought. Protest against the system of free private enterprise and production for profit seems to be common to all socialist factions. And in terms of the way out, the only general agreement seems to be on the need for a great extension of "social" or collective ownership and control.

In the statements which follow there are a few indications of the driving thought behind socialism and the different directions the socialistic movement has taken. The first statement discusses the ideas of Karl Marx, often considered the father of socialist thought. Marx, of course, was not the first socialist, but his writings have probably furnished the chief inspiration to the socialist and communist movements.

THE IDEAS OF KARL MARX,—THEN AND NOW ³

by Willard E. Atkins

KARL MARX believed that the interests of the capitalist and the laborer were fundamentally opposed. The capitalist would always desire greater profits, the laborer higher wages; hence what he called the class struggle would continue. The wastes of competition would inevitably bring about combination into trusts and ultimately into absolute capitalistic monop-

³ Adapted from *Labor Attitudes and Problems*, Prentice-Hall Co., 1924, pages 411-413.

oly. Hence society would tend to become divided into a smaller and smaller group of owners on the one hand, and a larger and larger group of propertyless wage-earners on the other. This small group of owners would become richer and richer while the wage-earners would become, relatively at least, if not absolutely, poorer and poorer. Between the opposing groups, the middle-class small tradesmen, professional men and the like—would be squeezed into smaller and smaller compass, their members passing over into the wage-earning group. Marx conceived that this process would go on until the middle class was practically eliminated, and that then the workers would be driven to inaugurate the social revolution—that is, they would take over, with conflict if necessary, the monopolistic industries which had been developed under the capitalistic regime, and run them under a system of collective ownership.

Writing as he did during the competitive period of capitalistic development, Marx must be credited with foreseeing the general period of trusts and combinations which followed in the highly developed countries such as Germany, Great Britain and the United States. Like all forecasts of future developments, however, the predictions of Marx failed to take into account the highly complex actions and interactions of world forces. Marx based his predictions on the economic interpretation of history, the theory that the events of history are caused not by the working-out of the plans of great leaders but chiefly by the urge of the more primitive impulses in the satisfaction of economic wants.

Whatever may be the primary causes of human activities, it is evident that the secondary causes are so complex as to defy any detailed prediction of the course of human history. The predictions of Marx seem to afford no exception to this statement. Though a period of large trusts and combinations has followed upon the era of cut-throat competition, the sharp division of the population into a few great capitalists and the masses of wage-earners has not worked out according to schedule. The middle class, in America at least, has failed to disappear. Small-scale enterprises have not been entirely crowded out. Some types of industry have not lent themselves to large scale developments, and difficulties of location and co-ordination set limits to the development of many large-scale industries. This is especially true of agriculture, where the small farm is still the rule.

The very types of business organization which have made it possible for a few rich men to gain a controlling interest in many enterprises have at the same time increased the numbers of small investors. Many salaried men and even a considerable number of wage-earners have invested in various stocks, and consequently have a direct interest in the preservation of the capitalistic system. In many cases the gains which the workers have obtained from time to time, partly as a result of their own organized efforts, partly as a result of wise concessions of far-seeing and sometimes philanthropic employers, have mitigated the social revolution. Furthermore, divergent interests of different groups of employers and divergent interests of different groups of laborers have weakened the solidarity of

both capital and labor. Finally, a host of complex world-interests, national, racial, and religious, have, as the late war so clearly illustrated, interfered with the working-out of the class struggle.

It is true that social revolutions have occurred in several European countries, notably Russia, but they have occurred where the capitalistic system was least developed. The highly developed large-scale industries which Marx expected the laborers to take over are not to be found in a country like Russia which is still predominantly agricultural. And in those countries where large-scale industries do prevail, there seems to be more evidence of a continuance of the processes of gradual change and adaptation than of revolutionary transfer.

Since Marxian socialism is not so much a program of reform as an interpretation of the tendencies and consequences of capitalism, and since the social state does not seem to be following upon the heels of capitalism in the inevitable manner in which Marx expected it to come, few socialists of the present time are strict and logical followers of Karl Marx.

The socialists and "radicals" of today are divided into many camps. Among them opinion is sharply divided in respect to the form of social organization desired and also in respect to the methods or tactics to be employed in attaining it. Two of the more important attitudes among these groups are suggested in statements by the same author. The first deals with the more moderate type of "evolutionary" socialism which is today advocated by a number of people in Great Britain and the United States; the second deals with revolutionary communism. Both statements are written from a socialist point of view, and the second one includes some of the adverse criticism the socialists level at the communists.

In this connection it is interesting to note that many moderate socialists are prone to spend about as much time and energy in combating communism as in attacking the citadel of capitalism. And the communists often reserve their most withering fire, not for the capitalists, but for the "milk-and-water" (moderate) socialists. In fact, it appears to many observers that the real radicals of today are the communists, and that it is increasingly difficult to distinguish evolutionary socialists from progressive reformers who do not assume the socialist label.

SOCIALISM TODAY ⁴

by *Harry W. Laidler*

SOCIALISTS see society evolving, as a result of industrial and social forces inherent in capitalism, and of the ever-growing power, intelligence,

⁴ Adapted from *Roads to Freedom*, League for Industrial Democracy, 1925.

social consciousness and organization of the workers by hand and brain, into a socialist society, a coöperative commonwealth. The society toward which they are striving, they maintain, will lead more surely than will any other social goal away from social tyranny and toward social freedom.

This ideal has commonly been defined as "the collective ownership and democratic management of the socially necessary means of production and distribution." More concretely, socialism aims at municipal, state, and federal ownership and operation of natural resources, such as water power, mines and forests; of natural monopolies, such as transportation, telephones and telegraphs, and of large-scale industry.

The American Socialist Party platform of 1924 urges, for instance, ultimate transfer to the people of ownership of large-scale industries, beginning with those of a public character, such as banking, insurance, mining, transportation, communication and the trustified industries, and extending the process as rapidly as conditions permit, to the end that exploitation of labor through rent, interest and profit may finally be abolished.

Socialists, however, do not demand the public ownership of all industry. Under a socialist regime, they declare, there would be a considerable amount of voluntary coöperation among both consumers and producers. The tendency would probably be for consumers' coöperation to persist under socialism in the distribution of many household necessities—a business in which it has already gained much strength in European countries. In the publication of organs of opinion a very considerable amount of voluntary coöperative effort might also be expected. Farmers' coöperatives, self-governing work-shops, and other forms of producers' associations would be in evidence in many lines of endeavor.

Private ownership would also survive in certain occupations under a collective regime. Many handicraftsmen owning their own tools and farmers doing their own work would probably prefer to labor for themselves rather than for any public body or coöperative. A considerable number of new industries in the experimental stages might be started as private enterprises. There undoubtedly would be many free lance writers, artists, etc., not employed by any one group. Private and coöperative industries would, of course, be under obligation to observe certain regulations passed by the community to safeguard the workers and consumers.

The aim of the socialists is not to superimpose upon the people any particular industrial mechanism, but to abolish the system of exploitation of man by man, to eliminate industrial waste, to secure equality of opportunity and the maximum social welfare, and to develop the personality of the mass of the people. It is the belief of the socialists that only under a system of social ownership can these objects be attained, but it is also their belief that only future experience can tell what particular forms this socializing process should take. An effort would be made throughout, in the various publicly owned industries, to eliminate bureaucratic and autocratic control, and to ensure that all of those elements

that are concerned in the running and in the success of the industry—the workers, the technicians, and administrators and the general public—be given adequate representation in industrial control.

Socialists are not committed to any one form of compensation for intellectual and manual producers. Under a coöperative scheme, undoubtedly the principles of compensation “according to deed,” compensation “according to need,” compensation based on length of service, and equal compensation would all play their part, while the law of supply and demand could not be ignored. Compensation based on ownership of industry, compensation “according to greed” and compensation “according to breed,” however, would, it is hoped, no longer exist. The end to be attained here, as well as in the matter of ownership, would be social efficiency and social happiness, and those forms of compensation which proved best fitted to bring about these ends in particular occupations would gradually replace other forms.

Socialists, however, are aware that even now people are motivated by other than the profit incentive—the incentive of social prestige, the desire to create, to pay one's way in life, to develop one's potentialities, to serve one's fellow men and to be part of a great enterprise—while many are kept in productive work through the enormous power of mere habit and custom. To the extent that the money incentive is necessary to bring out the best sort of efficiency, to that extent it can be utilized in a socialist society. However, the greatest possible encouragement will be given to other incentives, and they may be depended upon to be more influential as the years go on under a system of production for use rather than for profit.

Socialists oppose a class state utilized for the purpose of keeping down an oppressed class. They believe, however, that some machinery is necessary, whether it be called the state or not, for the purpose of expressing the will of all the citizens. Such a machinery should be thoroughly democratic, should give adequate room for the expression of minority opinion, and should not interfere with the freedom of the individual to order his own life, except where the exercise of that right interferes with the equal rights of others.

While the family and religion, like every other social institution, are constantly undergoing change, the socialist movement puts forth no proposals interfering with monogamy or with religious beliefs. Opposition to the family has never been a part of socialist platforms or programs. On the contrary, there is every indication, socialists maintain, that the character of the family will be greatly improved under socialism. The ethical life of the community as well is bound to rise to greater heights under a coöperative system.

Socialists realize that all industry cannot be socialized at once. Transferring industry from private to collective ownership must take time. The majority favor some method of compensation for industries transferred. As much of the money for the purchase of industries as practicable should be raised, they believe, through graduated income,

inheritance, land value and other forms of taxation. The manner of transfer will, of course, depend on the temper of the times when socialization occurs. In times of violence, confiscation is far more likely to be urged than in more normal periods.

COMMUNISM⁵

by Harry W. Laidler

BOLSHEVISM or communism is the name applied to the social philosophy of those now dominant in the Russian republic. The communism of the Russian communists must not be confused with the old communism of the early Utopian writers. The latter urged the abolition of private ownership not only in the means of production but also in all property.

The advocates of Bolshevism or communism differ from the organized socialists of the world not in their ultimate idea of social organization, but in the method advocated by them in attaining their goal. The socialist movement throughout the world has based its tactics largely on the hope that Socialism would be brought about through the growing power of the workers organized in labor unions, in political parties, in coöperative societies and in educational groups. They have striven for the day when labor and socialist parties in the advanced countries of the world would become the majority parties in parliament and, through legislative action, enforced by trade and industrial unionism, would proceed to transform industry from private to public control.

The Bolsheviks, on the other hand, have felt that such parliamentary efforts were bound to be too slow, and that other tactics should be urged. They maintain that an effort should be made to organize the more intelligent, aggressive, militant minority of the working-class population as revolutionary nuclei, especially in strategic industries and in the army and navy. These communist nuclei should seek out as many points of contact as possible with the rest of the working class.

The tactics of Bolsheviks are based largely on the belief that the system of capitalism is bound to collapse. It will probably collapse, they feel, as a result of another world war. The next world war will bring in the world revolution. When capitalism disintegrates, the workers will turn to the communist nuclei who will be in a position to furnish the only real leadership. Through the more or less passive support of the large mass of workers, the small revolutionary nuclei will then seize the strategic industries—railroads, telephones, telegraphs, electric power, mines, etc.,—together with the agencies of government, and proceed to run industry for the workers. Old democratic forms will be temporarily abolished, old officials ousted, and the soviets of workers, farmers and soldiers will supplant representative legislatures.

According to Bolshevik tactics, this capture of the state should be

⁵ Adapted from *Roads to Freedom*, League for Industrial Democracy, 1925.

succeeded by a "dictatorship of the proletariat." In establishing this dictatorship, the workers should disfranchise non-producers, extending the right to vote only to workers. The farming population should have a voice in the government, but should have proportionately a smaller representation than has the city worker. Opposition newspapers should be temporarily suppressed, counter-revolutionary movements put down with an iron hand, and the soviets should proceed immediately upon a comprehensive program of socialization. Side by side with this action, the International of the workers should be strengthened for the purpose of stimulating immediate revolutions in other countries. Following the transition period, freedom of discussion should be restored, and with the elimination of parasitism the franchise should again be made practically universal.

The original Bolshevik tactics as adopted by the Russian communists have been considerably modified during the past few years, owing largely to the failure of social revolutionary movements in other parts of Europe, to the collapse of military expeditions against Russia, and to the fact that the farming population had to be conciliated. The Bolsheviks have recently granted an increased measure of free discussion to their opponents, have brought numerous non-Bolshevik elements into the government, are granting to private employers the right to own and operate certain industries and are leasing out other industries to private managers. Marked encouragement has of late been given to technical experts.

The critics of Bolshevism maintain that the Bolsheviks erred in basing their tactics so largely on the assumption that revolutions were about to break out in other European countries; in adopting anti-social means, such as violence, to attain social ends; in assuming that such a semi-feudalistic system as existed in Russia could be transformed at a single step into a coöperative commonwealth, and that a highly centralized and comparatively inexperienced soviet government, after thus socializing the entire industrial structure, could run this structure efficiently; in failing adequately to consider the economic beliefs and the potential power of the large mass of slowly moving peasants; and in trying to superimpose upon the labor movements of other countries tactics which may have been necessary and desirable in a semi-feudal, agricultural country like Russia, but which are not adaptable to countries with a widely different economic, social and political background. Finally, communists have been criticized on the ground that many of them have adopted the shibboleth in their struggles that the ends justify the means; that all is fair in the fight for the revolution. In criticizing the tactics adopted by the Russian Bolsheviks, however, one must not forget the Russian background and the almost insuperable obstacles against which the communists have had to contend—the broken-down economic machinery inherited by the communists, civil wars, international blockades, etc.

The recent change in front of the soviet government indicates that

the Bolsheviks themselves now admit, at least in part, the justice of some of the criticisms of their opponents.

Inevitably, when one talks of socialism or communism, Russia is brought into the discussion because of the very large-scale experiment in socialistic organization in progress there since 1917. What has been the result of that experiment to date? Has it proved successful? If so, can it be used as a basis for similar changes in other countries where conditions differ? Probably no one knows. Much of the information available in the United States about what is going on in Russia is most unreliable. Reports are conflicting. The stories told by people who have visited Russia since the revolution vary according to the part of the country visited and frequently according to the economic views of the observer. It is difficult to find out even how far Russia has actually carried out a socialistic program, to say nothing of determining the good or bad results of the experiment. One of the rather rare temperate descriptions of the Russian experiment is quoted in the following selection.

THE RUSSIAN EXPERIMENT⁶

by Stuart Chase

SIXTEEN men in Moscow today are attempting one of the most audacious economic experiments in history. As the presidium of the State Planning Commission, responsible to the Council of People's Commissars and popularly known as the Gosplan, they are laying down the industrial future of 146,000,000 people and of one-sixth of the land area of the world for a period of fifteen years. They are making a careful and immensely detailed plan for a year in advance, a careful but less detailed plan for the next five years, and are blocking out the general economic development for the next fifteen years. Not only industry, but agriculture, transportation, superpower, exports, imports and the government budget, all come within their purview.

Here in America we can sometimes coördinate production to demand, or "balance the load," as the engineers say, in a single factory; less frequently we can balance it in a single strong industrial monopoly, like the American Telephone and Telegraph Company, but in Russia they are trying to balance it for the whole economic structure, particularly as a protection against crises and speculative booms. The Gosplan is our War Industries Board of 1918 carried several dizzy leaps into the future. It is an experiment so immense, so novel and so courageous that no student of economics can afford to neglect it. Whether it trans-

⁶ Adapted from an article in the *New York Times*, Dec. 11, 1927.

cends the limits of human administrative capacity and fails, or whether it meets this challenge and succeeds, it has much to teach us. It is something new in the world.

Suppose you were asked tomorrow to take a train to Washington, to sit at a desk in a government bureau, to take pencil and paper and tell the railroads, the power companies, the steel mills, the coal mines, the oil fields, the Secretary of the Treasury, the banks, the wholesale houses, the farmers, the ship lines and the automobile factories how to order their capital investments and their raw materials, how to plan their production and distribution—for the next five years. One suspects that even Henry Ford would quail before the order. For lesser mortals a journey to the moon would seem about as feasible. Yet here are men who have accepted the challenge in a larger though industrially less complicated country.

The Gosplan would be impossible without a high degree of economic socialization through which its mandates can be put into practical operation. Russia is far from a communist, or even a pure socialist state; but it does carry on with a larger amount of socialization than any other modern community, except possibly Denmark. According to government statistics, not over 10 per cent of the agricultural output of Russia which finds an outside market is socialized; that is to say, it is not in the hands of government farms or producers' coöperative societies. Ninety per cent is the work of the individual peasant, who is in effect a private trader. To get his wheat and milk and pork upon the open market, however, the peasant must sell a large fraction of his produce to government-controlled wholesale houses at prices that are largely fixed in advance. Nor can he export any of his produce except through the government export monopoly. So, while the bulk of agricultural production is not socialized, its distribution is.

Of industrial production it is estimated that 83 per cent is publicly controlled. If we exclude the output of local handicrafts the percentage will be higher. The private factory owner and foreign concessionaire probably do not manufacture more than 5 per cent of the present factory output. It is said that more than 90 per cent is in the hands of the government trusts. There are several hundreds of these trusts; they are semi-independent, legal entities responsible for their own obligations, making their own agreements with the labor unions and committed to the earning of profits. But instead of going to stockholders, the profits go into a government budget.

Trust managers are appointed by the supreme economic council of the government, while prices of trust products are frequently controlled, and the disposition of fixed capital is always controlled—three vital factors which with other regulations tie the whole trust structure closely to the state. You can call it state socialism or state capitalism, as you prefer, but it is certainly industrial socialization on an enormous scale.

Wholesale trade is largely in the hands of the "syndicates," which are the selling houses of all the trusts in one field—the textile syndicate and the sugar syndicate are instances. The Soviet authorities figure that

approximately 70 per cent of all retail trade in industrial goods, excluding local barter and trading in the villages, is in the hands of government stores, trust stores or coöperative stores. The private shopkeeper has less than a third of the trade now, and is losing relative to the coöperatives every year. Thus distribution, both wholesale and retail, is largely socialized.

Finally, the government—either central or local—operates directly the railroads, steamship lines, telegraph and telephone services, and all public utilities, including large-scale electric power developments. It also controls prices, money, banking and credit, and has a monopoly of export and import trade.

On the whole, the system is a curious mixture of socialization with state socialism, state capitalism, coöperation, controlled concessions—all in the kettle; but this brief sketch makes it clear that save for the peasant producers—whose markets are tied up in the system—socialization is the rule in Russia.

Possibly enough material has already been presented to convey some idea of the aims and tactics of advocates of large-scale reform of the present economic organization. That such efforts at sweeping reform meet passionate opposition goes without saying. The opponents of wholesale changes are at present in overwhelming majority in this country, and consequently access to their opinions, of which many have been outlined in previous chapters, is too easily available in current literature to require extended presentation here. The statements which follow merely sketch a few of the arguments most widely used in combating proposals associated with socialism and other programs for extreme overhauling of our present economic system.

The first statement is a frank reply to the socialists, written by a prosperous business man who is an "unrepentant believer in private enterprise." In the second statement the socialists receive somewhat more sympathetic treatment at the hands of a student of socialism who finds himself in partial agreement with the socialists' indictment of the present order, but considers, nevertheless, that the socialist has overlooked a great many important assets of the existing system. The third statement concludes the presentation of the case for capitalism by asserting that socialists are weak on the constructive side, and that the present system accomplishes much more by a dependence upon automatic and unconscious direction than could be accomplished under a socialistic system by conscious planning of the type outlined in the previous description of the Russian experiment. It will be noticed that the brunt of the argument in this connection is borne by the familiar theory of competition.

A CAPITALIST'S REPLY TO THE SOCIALIST¹

by J. P. Benn

I AM a business man, making and enjoying a very substantial income. I own two motor-cars. I live amidst surroundings that to many people would seem luxurious. I control a fair-sized business, and, directly and indirectly, I suppose I am responsible for the activities of about 2,000 "wage slaves." I am, in fact, the sort of person against whom the whole of the socialist propaganda seems to be launched; and, when I listen to current political discussion, I find myself regarded not only as a superfluity but as a bar to progress, as one of the causes of poverty, want, and distress.

My bookshelves are crammed with volumes explaining what an evil creature I am. I possess numbers of books telling how beautiful the world would be if only I and my class could be eradicated. The literary case against me is indeed overwhelming.

Socialism will not be killed by the exploitation of the "Red Bogey," not by appeal to the selfish instincts of those who happen to possess a little more than the average of this world's goods. That would seem to be obvious, if only for the reason that these persons are in such an insignificant minority. The discussion must be lifted above personal consideration. It does not matter a row of pins to society, considered as a whole, whether I retain my income or not; whether, as an individual, I continue to occupy my present position of responsibility. The only thing that matters is the well-being of the whole, the good of the greatest number. The only question for debate is whether others are damaged or benefited by my operations and the size of my emoluments. If it can be shown that my income could be taken from me and handed over to the unemployed, and that I could live better by some process which had that effect, then the great majority of wealthy men would, I feel convinced, wave the red flag as vigorously and as enthusiastically as the most earnest Bolshevik. If, on the other hand, as I believe it to be, my income is merely the index of the much bigger income enjoyed by a large number of my fellow-men who, all of them, would lose such amenities as they now possess if my income were to go, then I have a case which must surely be examined, understood, and, if proved, accepted.

I am an unrepentant believer in private enterprise. I have failed to discover, in a long and diligent search, any material benefit which has ever reached mankind except through the agency of individual enterprise. I therefore regard the whole movement for creating wealth by political agencies as a snare and a delusion. For these reasons I see no essential difference between the Bolshevik of Russia and the numerous types of moderate socialists. Both are committed to the abolition of private enterprise, and both are therefore destroyers of human comfort. The frantic

¹ Adapted from *The Confessions of a Capitalist*, Hutchinson and Company, London, 1925, pages 1, 18-20.

efforts of the socialist to exclude the communist from the councils of the [British] Labor Party are, to me, illogical and futile. I am reminded of two murderers who filled a good many newspaper columns a year or so ago. Both directed their attentions to the same victim. The method of the one was to administer small doses of ground glass. The other adopted the more straightforward and direct method of the dagger. The moderate socialist is the ground-glass practitioner; the communist uses the dagger. But in so far as they are both bent upon the abolition of private enterprise, they are murdering the chances of the human race to reach a higher standard of material comfort.

THE SOCIALIST AS A CRITIC⁸

by O. D. Skelton

THE socialist indictment is a serious one. A social order against which such charges can be laid with any color of reason cannot be considered perfect by even the most easy-going of optimists. The socialist who focuses attention on the weak spots in the industrial structure performs a valuable service, lessened though the service may be by the wholesale and indiscriminating character of the denunciation. Candid recognition of the full extent of existing evils is the indispensable first step in progress and reform. Yet the indictment recorded fails to carry conviction to the impartial observer. It is beyond doubt one-sided and exaggerated, the truth it contains nullified by the truth it neglects. The socialist has grudged full recognition of the immensely strong points of our industrial system. He directs his shafts against a mythical extreme individualism, ignoring the restraining social forces implicit in the existing order, forces fully as characteristic as the scope and play which in the main are permitted to individual ambition and individual initiative.

The socialist has painted too black a picture. It is not merely that he has contrasted the dreamed ideals of socialism with the actualities of the competitive order; he has viewed those actualities out of all perspective. In his survey of society the one instance of failure is ever present to his gaze, the nine of success do not come within the range of his misery-focused lens. He cannot see the woods for the few decaying branches on the trees. His ear is attuned only to inharmonies. He sees the reeking fester of the slum, but is blind to the millions of homes in city and town and country where hard work brings forth its fruits of modest comfort and life is held well worth the living. He is alert to the occasional failure in adjustment of supply and demand, but passes over the continuous miracle by which the products of the ends of the earth are brought to each man's door and the world's markets made one. He culls industriously the instances of graft and dishonesty in contemporary

⁸ Adapted from *Socialism, A Critical Analysis*, copyright by Hart, Schaffner and Marx, 1911, pages 41-48.

business life, no difficult task, and presents them as typical of current practice, forgetting the sound honesty of the majority that provides the drab background for the scarlet sins, forgetting that no enduring commercial structure can be built on fraud, that general honesty and fair dealing are absolutely indispensable to the working of our complicated and interdependent industrial system, that the fabric of credit that the past few generations have reared posits a general high standard of business ethics—not the perfect standard of the closet moralist, but a pretty presentable work-a-day approximation; that, in short, unless there existed a general expectation of squareness, born of experience, the operations of the exceptional crook would be impossible. He is like the yellow journal which mirrors, not life, but the exceptional sensation and crime that mar life; leaves John Smith in obscurity if for a lifetime he does honest work and devotes himself to home interest, and exalts him to front-page publicity if on a day he loses himself in drink and murders his family.

Individual initiative does not involve individual isolation. Its complement is voluntary coöperation. Stockholders in a corporation, artisans in a trade union, farmers in a purchasing or selling syndicate seek the strength that comes from union. Mutual aid knits up the otherwise scattered and incoherent forces. Society must not be confused with the state. Compulsory coöperation is not the only alternative to individualist anarchy. Society is inexhaustibly fertile in its spontaneous groupings; religious, political, scientific, charitable, commercial interests draw men together in countless associations. We are caught in a thousand strands.

The socialist indictment errs, therefore, in ignoring the strong features of a competitive system, its positive advantages, and stressing out of all proportion the weak points, the negative deductions. Yet what of these weak points, these unsocial tendencies charged against competition, the poisonous adulteration, the young children stunted at the loom, the careless waste of human life in the pursuit of material wealth? In or out of proportion, they are none the less real. No impartial observer of contemporary conditions can maintain that individual and social interests invariably coincide, that in the race for wealth only those succeed who have best served their fellows. The frequently dangerous and unwholesome tendencies of unregulated competition are a patent fact. The socialist error here lies not in any mis-statement of these tendencies but in the failure to recognize the counteracting forces at work. In many cases the self-interest of one section or group suffices to thwart the injurious tendencies of the self-interest of another group. And where this recourse fails, the power of the state may be invoked to hold the balance fair.

If our existing industrial organization were committed to a *laissez-faire* acceptance of the results, good and bad alike, of unregulated competition, the position of its socialist opponent would be a strong one. But fortunately for society, such an extreme doctrinaire attitude does not prevail. Our existing society is not of individualism all compact,

In it, as in every other society since time began, there have been combined the complementary forces of individual initiative and social control. They have been combined in varying proportions, now the one force dominating, now the other. Following the excess of state regulation in the early stages of modern industrial development, there came the excessive license of the early nineteenth century. The manufacturer was led by unenlightened selfishness to resist all restraint; the public was blinded to the human cost by the tremendous increase in material productivity; the economist, in his more doctrinaire moods, assumed a harmony of social and individual interest providential in its completeness. Yet the complacency was short-lived. The public came to realize that individualism pure and undefiled was at one with socialism in requiring for its successful working a perfected human nature. A new system of regulation, aiming at the repression of competition, approached completion. The first Factory Act, regulating the employment of apprentices, was passed in Great Britain in 1802, over fifty years before the protective tariff was completely overthrown. The pendulum still swings in the same direction. More and more the modern state is realizing its true function of raising the ethical level of competition, retaining the struggle while insisting that it shall not be carried on at the expense of the weak and helpless. While it declines to follow the advice of the socialist and play the whole game itself, the state gives inestimable service by acting as referee;

THE SOCIALIST AS A PLANNER ⁹

by Benjamin M. Anderson, Jr.

THE great challenge which capitalism is entitled to make to socialism and communism centers about the problem of guiding and controlling the industries of a country, putting the proper amounts of labor and capital in different industries, producing goods of the right kinds, in the right amounts, and at the right times, keeping the proper coördination between production and consumption—keeping industry a going concern. Social radicals have often been effective in their criticisms of evils under the capitalist system, but they have been woefully weak in their constructive planning.

The great legal fundamentals of the capitalistic system of society are:

- (1) Private property in the instruments of production, including land,
- (2) Free enterprise,
- (3) Competition.

The socialist and the communist attack all three of these. The scientific defender of the existing social order defends all three.

The capitalist system based on these three great fundamentals does not imply the absence of political control or the negation of government.

⁹ Adapted from *Types of Social Radicalism*, a Chase Economic Bulletin issued by the Chase National Bank of New York, June 21, 1927.

There must be government, and government must perform very important functions if capitalism is to be successful. There must be law and order and social tranquillity. There must be contract law and the enforcement of contracts. There must be bankruptcy law in order that the inefficient business man, who is unable to make his balance sheet balance, may surrender the control of the industry which he has mismanaged into the hands of those more competent to manage it. There must be law to prevent fraud. Capitalism presupposes an elaborate system of commercial law. Capitalism presupposes sound money, which usually depends on governmental regulation. Capitalism presupposes also a level of commercial morality such that men may make plans for dealing with one another and for coöperating with one another with confidence that other men will keep their engagements.

Modern capitalism assumes a government which will act as an umpire, supplementing morality by law where necessary to make the rules of the game satisfactory. It assumes a government which will regulate the level of competition in cases where morality and trade practices are inadequate. It assumes a government which will regulate weights and measures, which will standardize qualities of commodities in a good many cases, which will protect trademarks and brands, and which, in the public interest, will protect new discoveries by patent rights and the like. It assumes a government which will check the business man who seeks to stifle competition—a government which, on the one hand, will prevent monopoly, and which will, on the other hand, maintain such a level of competition as to prevent success in competition by unfair practices and by the substitution of inferior for standard grades.

In general, it is not the function of government under the capitalist system to produce goods or to perform economic services. The actual direction of industry, the decision whether more wheat shall be planted and less corn, or more shoes shall be produced and less hats, is not made by the state or by collective society, but is left to the choice of independent producers. These independent producers make their decisions with reference to the state of the markets. The up-and-down movements of prices and wages determine whether more or less of a given thing shall be produced. If prices are rising in a given industry and falling in another, the tendency is for labor and capital to flow from the industry where prices are falling to the industry where prices are rising. The tendency is, moreover, for consumers to consume less of those goods the prices of which are rising, and to consume more of those goods the prices of which are falling. Oversupply of any given commodity, accompanied by falling prices, thus tends to correct itself, since production declines and consumption increases; whereas the shortage of supply of another commodity, accompanied by rising prices, likewise tends to correct itself through an increase of production and a curtailment of consumption. Under this system of free private enterprise with free movement of labor and capital from industry to industry, the tendency is for an automatic

balance to be maintained and for goods and services to be supplied in right proportions. A social order is created, a social coöperation is worked out, largely unconscious and largely automatic, under the play of the impersonal forces of market prices and wages.

The success of this system, however, depends upon its flexibility and the quickness with which readjustments can be made, and this, in turn, depends largely upon the extent to which it is competitive and free from unified conscious control. If a government or a collective system undertakes to regulate the business of a country as a whole and to guide and control production, there is required a central brain of such vast power that no human being who has yet lived, or can be expected to live, can supply it. When millions of people are working, each at his own special problem, studying his own special market, making his readjustment piecemeal under the guidance of market prices, the problem is manageable. If a central brain must do the thinking for all of them, chaos is inevitable. Great mistakes are made and these mistakes are carried much farther than would be possible under the competitive system, controlled by free prices.

Here, then, is the central contrast between capitalism and socialism—in the problem of coördinating the economic activities of men and making a social order. Capitalism relies upon the unconscious, automatic functioning of the markets. Socialism must do it, if at all, by conscious public planning, a central brain guiding, controlling and regimenting the masses of men, controlling production, controlling consumption, controlling the distribution of wealth and, in a large measure, regulating the lives and activities of men.

The ability to understand the highly intricate economic life of today, the ability to see through it and to see the different parts in relation to one another, to coördinate wants and efforts, to distribute resources properly among conflicting claimants—this ability does not exist. The economic theorist can in principle draw up a highly abstract scheme of economic life in its interrelations, a theoretical scheme which is useful in solving certain practical problems; but to put flesh and blood upon this skeleton, to make this scheme realistic and concrete, and to use it in the actual regulation of the economic life of millions of men is an impossibility.

In dealing with problems of economic organization, a thorough-going remodeling of the present system or complete acceptance of it are not, of course, the only alternatives available, although a large volume of popular discussion might seem to indicate that they are. There is a large range of possibilities between the two extremes of wholesale remodeling and wholesale acceptance. Some of these possibilities have already been indicated. The moderate socialist, for example, is generally willing to admit the advisability of preserving

certain important features of the present system, while staunch defenders of capitalism frequently grant the possibility that certain changes in the present system would be desirable.

To conclude the chapter, various "intermediate attitudes" toward the question of remodeling the present economic system are presented. One is that of the "liberal" as defined by one who takes pride in the label. In ordinary parlance, the definition of a "liberal" is one who agrees with you. Senator Owen, however, gives to the word a definite content which probably would not be fully accepted by all people regarding themselves as "liberals." Following the discussion of the extensively used term "liberal" is a statement of the articles of faith of a social scientist who sees the substitution of intelligence for emotion as an essential element in working toward the solution of economic problems through changes in organization. Finally, radical, conservative and "realistic" attitudes toward the existing economic order are presented through the medium of an imaginary conversation.

WHAT IS A LIBERAL? ¹⁰

by ex-Senator Robert L. Owen

THE dividing line between the conservatives and the liberals is found in the manner in which they respond to the doctrines of popular government and modern processes for protecting human life when in conflict with the acquisition or preservation of mere property rights. Broadly speaking, the minds of the conservatives have a tendency to regard the conservation of property and the acquisition of property as the most important things to be protected by the government. The liberals, on the other hand, while conceding the importance of protecting property and the acquisition of property, insist that the preservation of human life, the education of the people, the protection of their lives in industry, and the advancement of their physical and mental well-being, if found in conflict with the rights of property, must be regarded as superior.

The liberals, for instance, favor child-labor laws to protect children in industry. The conservatives disapprove these laws and argue that parents ought to have the free right to direct the lives of their own children and that the children have a right to work for the support of their fathers and mothers. The liberals insist that children should have the opportunity of education and of play during the tender years of childhood, and that on no pretext should this human right be denied for purposes of money making.

The liberals favor a minimum wage. The conservatives oppose it. The liberals favor the eight-hour day. The conservatives oppose it until it is established and opposition becomes in vain. The liberals favor the work-

¹⁰ Adapted from an address before the Women's National Democratic Club, reprinted in the *Congressional Record*, House of Representatives, February 18, 1927.

men's compensation act and the insurance of those engaged in industrial labor. The conservatives generally have yielded to this proposal, although at first opposing it. The liberals have favored an income tax, a progressive inheritance tax, and farm relief. The conservatives have opposed them.

It happens that often an individual is liberal in some respects and conservative in others. No human being can be finally classified as completely one thing or another. Men must be judged by their tendencies and on the principle of the parallelogram of forces and by the line in which they travel, due to their subconscious mentality.

SOCIAL SCIENCE COMPARED WITH AGITATION ¹¹

by Wesley C. Mitchell

THE effect of the war upon our attitude toward the use of facts for the guidance of policy links the present state of civilization with man's savage past. Anthropologists have come to recognize that catastrophes have played a leading rôle in advancing culture. The savage and the barbarian are such conservative creatures that nothing short of a catastrophe can shake them out of their settled habits, make them critical of old taboos, drive them to use their intelligence freely. In physical science and in industrial technique, it is true, we have emancipated ourselves largely from the savage dependence upon catastrophes for progress. For in these fields of activity we have developed a habit of criticizing old formulations, of testing what our fathers accepted, instead of experimenting. We keep discarding the good for the better, even when not under pressure. The result is a fairly steady rate of advance—advance so regular that we count upon it in laying plans for the future. Today we are sure that ten years hence our present scientific ideas and our present industrial machinery will be antiquated in good part.

In science and in industry we are radicals—radicals relying upon a tested method. But in matters of social organization we retain a large part of the conservatism characteristic of the savage mind. A great catastrophe may force us for a little while to take the problems of social organization seriously. While under stress we make rapid progress. But when the stress is past we relapse gratefully into our comfortable faith in thinking that has been done for us by our fathers.

The "social reformer" we have always with us, it is true, or, rather, most of us are "social reformers" of some kind. We all admire the qualities that go to make the leaders in social reform—warm sympathy for the oppressed, courage to face ridicule, flaming zeal in the face of indifference, tact and energy in conducting crusades. But an indefinite succession of campaigns to secure this, that, and the other specific reform is what we have been having for a long, long time. Many of the reforms

¹¹ Adapted from "Statistics and Government," an article in the *Quarterly Publications* of the American Statistical Association, Volume XVI, 1918, pages 228-232.

on which our grandfathers, our fathers, and our youthful selves have set our hearts have been achieved. Yet the story of the past in matters of social organization is not a story that we should like to have continued for a thousand and one years. Reform by agitation or class struggle is a jerky way of moving forward, uncomfortable and wasteful of energy. Are we not intelligent enough to devise a steadier and a more certain method of progress?

Most certainly we could not keep social organization what it is even if we wanted to. We are not emerging from the hazards of war into a safe world. On the contrary, the world is a very dangerous place for a society framed as ours is, and I for one am glad of it. The dangers are increased by our very progress in industry and democracy. Not long ago an English physicist re-emphasized the fact that modern Christendom is using up at an ever-increasing pace the energy stored during long ages in the coal fields, and pictured the doubtful fate of human kind as hanging on the race between science and the atom. Has not the time come to apply our intelligence to taking stock of the resources that the earth still holds and to developing methods of utilization that will protect our future? As for democratic progress, we know that men who can read and vote make restless citizens in a state where their work is not interesting to them and where their rewards do not satisfy their sense of justice. Such is the present stage of affairs with millions of aggressive Americans. They can be counted upon to change things by *turmoil* if things are not changed by *method*.

Our first and foremost concern is to develop some way of carrying on the indefinitely complicated processes of modern industry and interchange day by day, despite all tedium and fatigue, and yet keeping ourselves interested in our work and contented with the division of the product. That is a task of supreme difficulty—a task that calls for intelligent experimentation and detailed planning rather than for agitation and class struggle. What is lacking to achieve the end, indeed, is not so much good-will as it is knowledge, above all, knowledge of human behavior.

Our best hope of the future lies in the extension to social organization of the methods which we already employ in our most progressive fields of effort. In science and in industry, I have said, we do not wait for catastrophes to force new ways upon us. We do not rely upon the propelling power of great emotion. We rely, and with success, upon quantitative analysis to point the way; and we advance because we are constantly improving and applying such analysis.

While I think that the development of social science offers more hope for solving our social problems than any other line of endeavor, I do not claim that these sciences in their present state are very serviceable. They are immature, speculative, filled with controversies. Their most energetic exponents are still in the stage of developing new "viewpoints," beginning over again on a different plan instead of carrying farther the analysis of their predecessors. In part the social sciences represent not

what is so much as what their writers think ought to be. In short, the social sciences are still childish. Nor have we any certain assurance that they will ever grow into robust manhood, no matter what care we lavish upon them. They are blind leads of speculation in which past generations have mined industriously for ages with little gain. Perhaps the social sciences will prove more like metaphysics than like mechanics, more like theology than like chemistry. The race may always shape its larger destinies by a confused struggle in which force and fraud, good intentions, fiery zeal, and rule of thumb are more potent factors than measurement and planning. Those of us who are concerned with the social sciences, then, are engaged in an uncertain enterprise; perhaps we shall win no great treasures for mankind. But certainly it is our task to work out this lead with all the intelligence and the energy we possess until its richness or sterility be demonstrated.

A CONVERSATION ON THE ECONOMIC ORDER ¹²

by John Maurice Clark

CHARACTERS

TOM: a radical

DICK: a conservative

HARRY: a realist

TOM: It stands to reason that what factories and ships are for is to clothe and feed and shelter the community, and here we give them to a few people who think what they are for is to make profit for the owners and managers. It stands to reason their whole object will be to give as little and charge as much as they can, and the whole thing means anarchy and war, where we need order and coöperation.

DICK: They might try, but as Adam Smith said, there's an unseen hand that leads them to do what the community needs.

TOM: I don't happen to believe in God, and if there's some other unseen hand guiding things, all I've got to say is, the world isn't a very good testimonial to its wisdom. I wouldn't mind changing pilots.

DICK: Don't be blasphemous.

TOM: I tried not to.

DICK: Well, call it economic law. When these radicals start making the world over, they violate economic law, and it always makes trouble.

TOM: What do you mean by "economic law"?

DICK: Well, generally it's the law of supply and demand. You try to keep prices down and some people get things cheap; but there's more demand than there is supply. Trading is done illegally if it can't be done legally, and prices go higher in the illicit trade. Or else the goods don't get produced. Or else it's a little of both. You know in Russia the peasants wouldn't raise crops for the towns to

¹² Adapted from an unpublished manuscript.

take at the prices they fixed, and everybody traded illicitly in food at terribly high prices.

TOM: Well, is it a "violation of economic law" every time you try to keep anyone from doing what's to his own gain? Because if it is, then all the laws against robbery are "violation of economic law." Personally, it seems to me that the system we have violates some economic laws or it wouldn't break down every few years and throw millions of willing men out of work and leave the plants idle when there isn't enough to feed and clothe and house everybody adequately. That's a queer kind of a law of supply and demand, and I'll bet we could make a better one if we got together and really tried.

HARRY: Score one for Tom. But I think that "violating economic law" really means keeping people from seeking their own interests in ways that the moral sense of the community approves of. When that moral sense is back of you, you can dam up the flow of people's interests and get away with it. Only a few will disobey and they will be "bad people" whom you can punish. But our moral sense has a way of moving along. Maybe some day it will come to condemn the practice of charging over six per cent profit or managing a business without providing against unemployment almost as severely as it now condemns robbery. If that should happen, I guess we could take measures to prevent those evils without violating any economic laws or forces that would be too strong for us to combat.

DICK: Maybe the government could do wonderful things if it were omniscient, but as it is, it generally makes a mess of things when it tries to dictate how people shall do things. Government ought to prevent people from injuring other people and let them do anything else they want to. Then if they want to get things out of each other, they can only do it by offering them something in exchange. A free exchange is always a mutual gain, if each side knows what it is getting. You can't hurt a man by trading with him in good faith. He's free not to trade with you, and you don't have to trade with him, but if you do, it's so much to the good.

TOM: Do you mean to tell me that if I cornered the supply of wheat or coal or oil, I couldn't injure you by giving you your free choice of trading with me at my price or not?

DICK: Oh, of course, if you had a monopoly, that's different. I'm assuming people have access to some other source from which to gratify their customary needs. I suppose I'm assuming competition, which simply means that the man who gives you the most for your money gets your trade, and to do it, he has to be the most efficient producer.

TOM: Most efficient swindler, more likely. The most efficient unscrupulous producer is the one who can squeeze wages to the lowest point and adulterate or trim the specifications without getting caught.

DICK: Of course there are abuses. The institution's all right, the trouble is with human nature.

TOM: Exactly wrong, as usual. Human nature is all right, the trouble is with the institution.

HARRY: Excuse me for asking, but aren't your institutions something that people have made? Isn't it human nature that trod out the paths we call institutions, and very much the same human nature that follows them after they're trod out? Why should human nature acting in one way be all wrong, and the same human nature acting in another way be all right? Of course there are differences. An institution has stood the test of time, so it's had the worst mistakes knocked out of it. That makes it wiser than most of the wise men to just the extent that hindsight is better than foresight. That means a lot so far as conditions stay the same, as they were when the institutions grew up. So far as conditions have changed, the institution is bound to be antiquated, often so absurdly so that any mediocrity could invent a better one, if he could only overcome the inertia of generations. So institutions are wiser than wise men in some things and more foolish than foolish men in others. They're always lagging behind our needs and aspirations. You can say that they keep human nature from progressing. For instance, competition keeps men from developing a spirit of true coöperative service in business, by making them treat it as a form of warfare. That's true, and I'm ready to agree that business will never be on a sound and healthy basis until it comes to be really regarded as a profession of public service at least as much as the medical or teaching professions are today—perhaps as much as our best public officials. I wouldn't have said that ten years ago, but I've been seeing things that have made me do some hard thinking. At the same time, we can't scrap our old system all at once without relapsing into something worse. We haven't brains enough to design off-hand a new order that will work if we throw overboard all of our old appeals to selfishness. And if some of us had enough brains the rest of us wouldn't agree, and there would either be democratic muddling or else a dictatorship that most of us would distrust and fear. Either way there would be chaos. We might do better than Russia, but it doesn't take much disorganization of our mines and mills and railroads to make us go cold and hungry. And it's hard to develop a spirit of coöperation on an empty stomach and an empty coal bin, and the trouble with Russia is that people can't do creative thinking on a national scale when their minds are wholly occupied worrying over where the next meal is coming from. So I believe that the first thing to do to preserve what community morale we have and give it a chance to grow is to keep the machine running somehow, and improve it all we can meanwhile. The common honesty of business keeps a lot of men up to a higher level of conduct than they otherwise would follow, at the same time that it permits a lot of sharp

practice and lets business unload on the buyer or the laborer or the community at large a lot of burdens that are properly part of the costs of production.

QUESTIONS

1. Does socialism seem to you a faith, a program, a scheme of organization, an attitude, a political party, or what?
2. Why do some people try to make the world over in accordance with their ideas? Why do other people see red when socialism or bolshevism is mentioned?
3. Compare the program of evolutionary socialism as indicated in Mr. Laidler's selection, "Socialism Today," with the attitude taken by "Harry, the realist," in the final selection of the chapter. On the basis of this comparison, what points of likeness or difference do you find between moderate socialism and the attitude of "gradual social control" which is stressed by many economists and social scientists today?
4. Mr. J. P. Benn says: "I have failed to discover in a long and diligent search, any material benefit which has ever reached mankind except through the agency of individual enterprise." Can you succeed where he failed?
5. What criticisms do the socialists level against the communists? Have you any criticisms to add or subtract?
6. Are there any difficulties or drawbacks common to all comprehensive schemes of reform? If so, what are they?
7. Do you think that persons expressing socialistic or communistic views should be suppressed for the good of the community? Is there any clause in the federal Constitution which you think has a bearing on this?
8. Is the parable of the "Capitalist Development in the Poultry Yard" essentially an attack upon the capitalistic system or is it an attack upon the institution of private property in land?
9. Do you think it is true that virtually all programs of radical reform of our present economic system resolve themselves into attacks upon the existing division of private property?
10. Write a paper explaining the words liberal, radical, progressive, conservative and reactionary. Do any of these labels fit you? If so, why? If not, why not?
11. Who invented our present economic system? Was it built in such a way as to permit of remodeling to take account of changed conditions, or was it made in one piece which either must be accepted and used or thrown away?
12. In your study have you discovered any methods for testing proposals for comprehensive schemes of reform to determine whether or not they are worthy of serious consideration?

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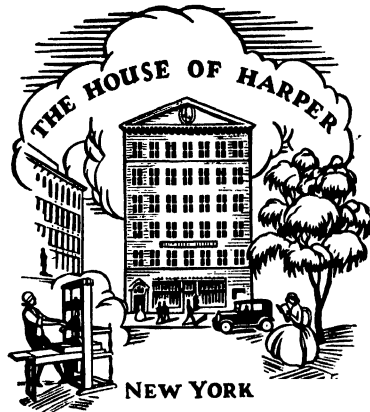
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